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HERBERT SPENCER'S RECONCILIATION OF SCIENCE AND RELIGION.

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MR. HERBERT SPENCER, in the "First Principles of a New System of Philosophy," proposes at the outset to reconcile religion and science. The idea of a reconciliation presupposes a conflict or an antagonism. How well this task is performed by Mr. Spencer is the subject for discussion at this time. If he, in a logical manner, has reconciled religion and science, then the question is settled, and it is a waste of time and energy to reject his conclusions. A valid argument rests upon valid premises, and from these the conclusion is necessitated. Reasoning as such is the ability to deduce a valid judgment called the conclusion from other judgments which sustain a logical connection with one another. In the case under consideration, if it can be shown that the reconciliation *does not* reconcile, then Mr. Spencer has failed to establish his proposition, and his argument so far as its validity is concerned, is unsound, although it may contain much useful and valuable information. Upon the other hand, if my objections to his "reconciliation" are not well taken, the fault is mine, either because I do not interpret him correctly, or that my argument is illogical. To understand a philosophical writer — or indeed any author — we must occupy the position that he occupies, see humanity in action as he sees it, look upon nature as its phenomena appear to him. To understand, then, the "First Principles," it is evident that we must know in what manner Mr. Spencer was and is

affected by mind and matter, motion, force, sensation and reflection. With him, as with all great minds, the question of paramount importance is, how to account for the origin of matter and mind; how to account for man with all his emotions, affections, and desires, his origin and his destiny. If from the materialistic standpoint Mr. Spencer sees the universe as an endless chain of effects, his explanation will partake somewhat of that infinite series whose beginning and end are wrapped in profound mystery.

To prove his theory he begins his argument with the following statement: "We too often forget that not only is there a soul of goodness in things evil, but generally, also, a soul of truth in things erroneous." By an easy transition, this statement leads out to all doctrines, rumors, reports, occurrences, and so on. No difference how grossly at variance a belief may be with the facts, yet there is some verity in it, or that at least which corresponds to an original experience in it. Among all people there is found a wide-spread belief — a religious belief. He does not attempt to explain it away. He will account for it as well as to account for the belief in the reality of science.

In accounting for these two beliefs, tracing them back through a long series of ages, he eventually finds that element that they have in common, and this once accomplished the reconciliation is deduced as a necessary corollary. Now, religious ideas are wide-spread, and have, therefore, existed for a long time. But the presumption that any current belief is not wholly false gains in strength in proportion to the number of adherents it has. Applying this doctrine to beliefs of whatsoever nature, it is found to be true, though the reader is reminded that the voice of the majority is not always the voice of God; yet majorities have not always been entirely wrong. This is not a new doctrine. The Eclectics held it, and so firmly has it become established in the minds of men that it is recognized very generally among all liberal minded persons whether applied to doctrines, science, law, medicine, or even to the ordinary affairs of life. When condensed it may be formulated as follows: That there is some sort of a foundation for every belief.

Cousin expressed this thought in another form, when he averred that every system of philosophy contained some truth. Mr. Spencer recognizes the fact that there is no definite way whereby we can find out just how much of a popular and wide-spread belief

is true or even how much of it is false. As an argument, however, he shows how beliefs in rulers have changed from the earliest times when men were represented as gods and demigods — and also to the modifications that have occurred in the minds of men concerning the power that the rulers exercised over the lives and property of their subjects. Once it was common to enact laws regulating the modes of dress and the manner of living, but such questions have long since passed beyond legal control. In those days the State furnished the individual with his religion and made him practice it. But there has been a gradual emancipation going on till the ultimate limit would seem to be the largest liberty of the individual consistent with the welfare of the whole. In all the past systems he finds a kernel of truth in each one. Turning to the present, and eliminating all that is not common to the whole, the average amount of truth on any given belief is obtained, but the "remaining constituent is an abstract expression which holds true throughout its divergent modifications."

Applying this to all our investigations he thinks we shall come to juster and more reasonable conclusions, and that we shall ever be ready to hold less positive convictions of our own and give more deference to the opinion of others.

As to religion and science, he asserts that there is a conflict, that it has been raging for centuries. Both are right and both are wrong; as the two knights who fought about the color of the shield, neither of whom had looked at both its sides. Religious ideas, he grants, of some sort are universal, and equally so are the ideas of science — and science, in its higher form, is only a development of common knowledge.

Mr. Spencer, after a preliminary discussion, comes to the subject of religious ideas. Trying to account for them, two suppositions are made: first, that the feelings which correspond to religious ideas resulted along with all other human faculties from special creation; the other by a process of evolution. This is the starting-point. It is fundamental, radical. Mr. Spencer does not hesitate to employ the evolution process. "Creeds," he says, "are not priestly inventions." He thinks a candid analysis of the facts controverts this position. Owing to the universality of religious ideas, "their source is deep-seated," not artificial, as some would have people believe. Should it be asserted that they are the product of a religious sentiment, the difficulty is only removed —

one step — not surmounted. Whence comes the religious sentiment? He recognizes this fact and meets it manfully — "they must be derived out of human experience, slowly accumulated and organized." This, then, is his system, and upon it he accounts for the religious sentiment in the human race. Neither ignoring religion or science, he sets out to find the harmony between them. He must look for harmony in the most abstract principle in both of them. They coalesce in the highest abstract conception. "Assuming then," says he, "that since these two great realities — religion and science — are constituents of the same mind, and respond to different aspects of the same universe, there must be a fundamental harmony between them; we see good reasons to conclude that the most abstract truth contained in religion and the most abstract truth contained in science must be the one in which the two coalesce. The largest fact to be found within our mental range must be the one of which we are in search. Uniting these positive and negative poles of human thought it must be the ultimate fact in our intelligence."

The next step he takes in establishing his reconciliation is, to prove that nearly all our conceptions are symbolical, not real. By way of argument he introduces the earth as a conception, and sets out to show that the notion we have of it is symbolical and not real. Here is a fatal mistake at the outset. He fails to distinguish between a complete and an incomplete conception. Because we are unable to grasp all the attributes of an individual object of thought it by no means follows that the conception is symbolic. Again he says: "We must predicate nothing of object too great or too multitudinous to be mentally represented; or, we must make our predications by the help of extremely inadequate representations of such objects — mere symbols of them." Is it true that our conceptions are limited to objects that can be represented in the imagination? Conflicting attributes cannot be thought as adhering in the same object at the same time, yet in the different types of men I know these attributes may be found, but in the mind the general concept "man" is as a reality, although the mind is mentally impotent to figure the universal concept in the imagination, and so of other universal concepts. The question is shifted, perhaps unintentionally, to this: An objective reality which corresponds to the general concept. Very truthfully he says: "To every civilized child the problem of the universe

suggests itself. What is it? and whence comes it? are questions that press for solution." Three suppositions may be made: 1. Self-existent. 2. Self-created. 3. Created by an external agency.

The test Spencer applies is whether all or any one of these suppositions is conceivable. Each is examined in turn, and each is discarded because inconceivable and absolutely unthinkable. If we go a step further and inquire into the *cause* which lies back of the cause of the universe, when critically examined, it turns out to be literally unthinkable.

After searching his work I find this as the reconciliation between "religion and science":—

"If religion and science are to be reconciled, the conciliation must be this deepest, widest and most certain of all facts — that the power which the universe manifests to us is utterly inscrutable," and the agreement between religion and science, the harmony in all religions, in all philosophies — "is there in something to be explained, and secondly, such and such is the explanation." Continuing our investigation we shall find no other explanation in subsequent pages of his "New Philosophy."

Summing up his conclusions we find that evolution is his explanation of the universe, man included; that the religious sentiment is a slow development as man has been evolved from preëxisting forms; and lastly the reconciliation consists of this: That there is a fact — the world and all it contains and how to account for it?

It is evident to my mind, at least, that his reconciliation does not reconcile anything. If it proves anything it is this: "How not to account for the universe?" But as it cannot be accounted for it is unknowable, and, therefore, both religion and science land in the "great unknowable."

Again, he rejects as untenable, or unworthy of notice, the theory of man being created at first with all the mental, moral, and religious faculties that he is possessed of today. Yet he argues that there is truth in all systems and a greater proportion of truth as the followers are more numerous and widespread. But nearly all Christians believe that man at first was endowed by the Creator with these powers, hence, according to Spencer's own argument, he is forced to admit that there is truth in the theory which he did not discuss, but rejects.

To the Christian there is, however, a higher phase of thought, and that is, the evolution theory is inadequate to account for man's conscience, and his consciousness of right and wrong, involving responsibility and accountability. Here is a question that man cannot evade. In the silent hours of the night, in the busy daytime, it will not down. "I did it; I am responsible," is the language of humanity, and we know and feel a reconciliation, not in the region of the "unknowable," but in the broad field of self-consciousness. Mr. Spencer's system eliminates responsibility, and therefore dissipates christianity. Reconciled in the "unknowable," which itself is unknown, is a strange reconciliation indeed. How any one can assert that two unknown concepts agree, or disagree in a more comprehensive unknown "unknowable," is a metaphysical distinction that even Mr. Spencer fails to elucidate. To assert that two concepts of thought have a common attcibute, is to affirm that they agree thus far, but when they are unknown and the great "unknowable" is itself unknown, all knowledge ceases and the reason can neither affirm nor deny any attribute. Admitting that they, Religion and Science, do harmonize in this that a question of origin about each is proposed, and that both require explanations, this is bringing these "unknowables" clearly within the sphere of things partly known. This follows as a logical consequence. But why dignify it as a reconciliation. All mysteries may be thrown into the same category, yet it is not probable that men would say that there is any necessary connection among them.

Men search for truth, which is the harmony of thought with its object, hence the mere statement that two things are not known, and perhaps are widely separated in many respects, is not sufficient evidence upon which to construct a system of reconciliation. Were all the ideas that compose the general concept, religion, grouped, and in the same manner the general concept, science, then Mr. Spencer, has, if he made a discovery at all, found a single point of contact, and nothing more. Beyond this, and within the limits of either, he is not justified in making an analysis, or even constructing a system which will show that the different are absorbed in a unity, which cannot be found out. In analyzing the faculties or the capacity of the human soul there is no evidence, so far as I can discover, that tends to show that any single faculty is a late acquisition. Science, in its many-sided aspects, does not

reveal new faculties of the soul any more than it does newly created elements in organic or organized matter.

As the acorn is the potential oak, so the Christian believes that primal man had all the faculties that civilized man now possesses. Original capacity ought not to be confounded with developed powers under a system of culture. For the Christian to accept Mr. Spencer's reconciliation, he must admit that the religious feeling is unknowable; he must admit that consciousness of actions, right and wrong, is unknowable; that the faith which he believes and the doctrines that he practices are unknowable; he must accept these conclusions, when his own consciousness — that test of all philosophies, the highest test that men have of their own mental acts and states — clearly, positively, and universally testifies to the contrary.

THE EVOLUTION OF THE KINDERGARTEN.

BY MAY MACKINTOSH.

THERE are, at the present time, many indistinct and partially untrue conceptions of the extent and scope of the Kindergarten idea in education. It is often explained as a special application of Pestalozzi's theories and practice to the training of very young children; and Froebel himself is given only the place of a disciple, and not also that of an original thinker, observer, and worker. Froebel was the disciple of Pestalozzi to some extent; but he soon saw Pestalozzi's limitations, and determined to make his own path toward the truth. Froebel was *stimulated to original research* by Pestalozzi, as was the latter by Rousseau; and Rousseau in his turn by the older writers on education. Indeed, we can almost as well trace an "apostolic succession" in educational as in religious matters.

What original work, of whatever nature, since the beginnings of history, can boast its entire independence of that inspiration which proceeds from outside influences? What great idea can we trace far enough back through the ages with the certainty of reaching the ultimate origin or cause of which we can say — "Before this — nothing"? In this sense, certainly, no mind of which we possess any record can be called original. *The most any*

human being can do is to remain responsive to the best sources of inspiration, both in the present, and in the past, so acquiring and preserving the power to bring old truths into new relations; and to keep the ideal of the highest good before the eyes of those who have not the time or mental aptitude to erect standards for themselves.

It might be possible to prove that nothing called "new" could be accepted as such by humanity at large, had not its dullest individual made some progress towards the independent discovery of the fact for himself. In other words, that every new discovery can only live in its own suitable atmosphere, which has been previously prepared for it.

The Baroness von Marenholz-Bülow, one of Froebel's best interpreters, says: "Genius needs excitement and influence from without, in order to be conscious of itself, and of the mission which it has to fulfil. The ruling minds of an epoch are spiritually related, and affect and work upon each other, without the peculiar stamp of each being necessarily effaced."

So in these pages I shall endeavor to show some of the causes producing the atmosphere which at length became sufficient to support life in the educational theories of the Innovators, from Ratich to our own times, and which culminated in the Kindergarten of Froebel. I use the word "culminated" advisedly — in its astronomical sense of a planet's "highest point of altitude *for the day*"; for I believe that the laws of eternal progress govern both the mental and moral universe, and therefore do *not* believe in the possibility of any "last word" in education while the earth endures.

Paradoxical as it may seem, for any complete History of Education, it would be necessary to go back to pre-historic times. Education, though at first half-unconscious, and proceeding from the external world without human interference, was, and is, the cause of all progress, of all civilization, if we accept the broader meaning of the term. Indeed, Education and Civilization run in parallel lines; and the history of civilization furnishes many hints of underlying principles of the Philosophy of Education.

Herbert Spencer credits M. Comte with being the first to formulate the statement that the development of the child is as the development of the race, but the origin of the idea is far older than its precise statement.

Ratich said, "Everything according to the order and course of

Nature," which contains at least the germ of the later statement, though it is more general, and betokens less accurate insight; and Comenius followed him closely, with a greater minuteness of analysis, showing what "according to Nature" meant in all its aspects.

Comenius, indeed, laid the most emphasis on the study of nature in general, and derived his laws of Education by analogy. Pestalozzi and Froebel studied the order of development in the child itself.

But even as far back as Aristotle, we find "Nature" appealed to as a valid reason or excuse for certain usages of the Greeks; and Plato's ideal State was to have "a *natural* division of labor."

As Madame von Bülow so well says of the Kindergarten system, — it is "an idea which Froebel received from the hands of his predecessors *as a seed from the flowers of the past; and which he left to the present only in germ*, so that legions of thinkers of the following age, and in different departments may develop it, and bring it to maturity as an element of the general idea of the time."

The laws governing the development of the kindergarten follow this idea of "Education according to the order and course of Nature"; and accordingly we may place first the law, "Each individual must go through similar experiences to those which developed the general characteristics of the race"; and consequently, "The individual can only develop according to its species."

Education is the civilization of the individual.

The earliest, and perhaps the only things taught in the early history of man, were the methods of procuring food, and, where climate necessitated it, clothing and fuel. By degrees, work undertaken for the needs of humanity resulted in various discoveries which produced luxuries. So far the physical nature was predominant; but by reason of the fundamental differences in character which always divide mankind into the two classes, rulers and servants, (no matter by what names these divisions are called) it came to pass that the stronger obtained the greater share of luxuries. The greatest of all luxuries was that of *time;* the needs of food, clothing, etc., being supplied by the weaker individuals, the aristocratic class had leisure for *thought.*

Here was the dawn of conscious intellectual development; and

probably also the origin of the idea of "knowledge for its own sake" in contradistinction to mere utilitarian theories. The struggle upwards from the era of barbarism must have been so intense as to cause the balance of thought to sway in exactly the opposite direction from that of its rudimentary activities, — those of *use*, — and to make learned men glorify that development of the intellect which gave power to entangle the emptiest subtleties of logic and rhetoric, as the most pleasing employment of their leisure. It was not until the times of Lord Bacon that knowledge became generally respected as a valuable *working-partner* in life.

And so the master-intellects of China, of Persia, of India, and of Egypt, worked on; each isolated, and uninfluenced to any great extent by their neighbors; indeed, only influencing their own people so far as to give shape to their religious dogmas, which, as they were to be received unquestioned, did not stimulate intellectual progress. The Jewish people stood alone, in that they were consciously guided by the voice of God in a course which always held the promise of better things to come. But they were also commanded to separate themselves from the surrounding nations; so that, though in advance of their times, their influence was not felt to an appreciable extent.

But when Greece and Rome in succession led the thought of the world, greater strides were made. Socrates raised questions which could not be set aside unanswered; and was succeeded by Plato and Aristotle, who became the heads of two great schools of thought, — Plato, the father of the doctrine of *the superior reality of the archetypal idea in the Divine mind, — the universal;* and Aristotle, the forerunner of the modern scientist, who asserted the *reality of individual objects — the particular.*

The idea of the significance of the universal — the type — was a favorite one with Froebel, but he did not go so far as to deny reality to individual objects. In the present day, all systems of philosophy have become more and more inextricably blended; so that it would now be impossible to find a pure Platonist, Peripatetic, Stoic, or Epicurean philosopher. Yet their influence is with us, directing our thoughts and actions more than we always realize.

But we must pass on rapidly; through the dark ages, through the rise of the scholastic philosophy, through the widening influences of the travel and commerce brought about through the

medium of the Crusades, to the three discoveries, or inventions, which opened the way to a broader view of the ends and aims of civilization. Of these, the Discovery of Gunpowder ended the reign of chivalry, and took away much of the glory of war, which could no longer remain a noble pastime when gunpowder made the foot-soldier the equal of the knight; the Invention of the Compass made possible the discovery of the New World, thus doubling the sphere of human action; and the Printing Press gave the learning of the ages to the many who had before thirsted in vain for its possession.

Then come the great results of this spread of enlightenment — the Reformation, which was a universal movement, claiming liberty, first, in religious thought, and afterwards, in all departments of mental action. With the atmosphere instinct with new and no longer repressed life, it was an easy step to leave the ranks of the scholastic teachers, and declare for an education which should be "pleasurable, and according to Nature."

Our second principle is as follows: —

"There must be a logical sequence in education; an order of least resistance to acquirement and development."

The third: —

"The individual grows by the use of the opportunities given to him for Self-activity, both physical, mental, and moral."

This self-activity is the salient feature of the practical workings of the kindergarten, — education through the playful activities of the child. As a theoretic axiom, we can trace it at least as far back as to Plato, who believed that games should train and improve the mental as well the physical faculties; and to Comenius, — though he differed from Froebel in confining the child, up to its seventh year, to the educational influences to be received at the mother's knee.

Froebel, on the contrary, believed that the little child was made more unselfish, and mindful of the rights of others, by an earlier introduction to the society of its peers; and also, that backward children would be encouraged to successful effort by seeing what other little children could do. Of course, there must be no conscious emulation in a kindergarten; only a desire to do the best possible, in each individual.

This Self-activity will necessarily be pleasurable; and all the faculties will come easily and naturally into *play*. Mark the double significance of the italicized word!

Pestalozzi taught his children to observe only; Froebel went a step further, and led his pupils to playful imitation.

Schiller writes, "Deep meaning often lies in childish play"; and Froebel himself says, "To see, to recognize, to perceive, requires light, and *is* light. From the sufficient care of the creative activities in man is developed knowledge (light) — light within him and around him. From this is revealed to us the aim and destiny of man, — to be light within himself, and to walk in light; as well as, that by this care, it is made possible for him to attain this aim." "God is revealed as Life in Nature; as Love, in Man; as Light, in Wisdom, Knowledge, and Mind, and appears in each being as a creator in such threefoldness." (I am indebted to Miss F. E. Schwedler, my trainer in the theory and practice of the kindergarten, for this translation of Froebel's words.)

Fourth comes the great Law underlying the practical workings of the kindergarten which is known as the Law of Organic Unity; or, the Law of the Connection of Contrasts (which produces harmony).

All activities are conditioned by the discrimination of contrasts and likenesses; and the discovery of hidden harmony between related contrasts, both in the material world and in the abstract domain of thought. It is expressed by the Baroness von Mahrenholz-Bülow, Froebel's clearest expositor, as follows: "The theory in which Froebel and Krause, the philosopher, agree especially is the idea of the analogy existing between organic development in nature, and organic development in the spiritual world; and according to which the historical development of mankind has proceeded, obeying the same laws as those of nature and its organisms. The same logic of the one all-penetrating Divine reason rules in both, unconscious in the one (nature); conscious to itself in the other, (mind). *Therefore are the opposites ruling everywhere not absolute, but relative, and always find their connection or solution in the process of life.*"

Froebel did not believe that the world could at once understand or accept the full significance of this law. He believed that contrasting beliefs and theories were to be brought out in their full sharpness of distinction, as they appeared to innumerable and various minds, before the inner unity of all things; the intellectual and physical, — mind and matter, could be realized.

"Education cannot and should not be dualistic, since it has to support and assist *the development of body and mind equally*, and to look upon their harmonious culture as its goal."

To recapitulate, the most ancient idea now embodied in the practice of the kindergarten, is *the educational influence of play*. The old Greeks and Romans believed in the value of training the physical man by games requiring strength and skill; and the spiritual and intellectual sides of their natures by music, dramatic representation, and rhetorical contests, which might be styled word-games. The very fact that some games played in Greece and Rome are played by our children, in an almost unchanged form, shows that there is something universal and enduring in their nature. Their popularity seems to be owing to the fact that they are rudely descriptive of the doings of men and women in all times.

All games of mastery and skill depend for their interest upon the original feeling of emulation which caused one portion of humanity to outstrip another in the race of civilization.

More dramatic games (often accompanied by doggerel, and a monotonous rhythm), represent the salient characteristics of the life of mankind in general; as "playing house," "school," "church"; and the innumerable games representing a rough sort of courtship, which is generally coeval in development with the time when a wife was won by audacious bravery, and kept by the strong arm!

Most people who have at all studied the subject will allow that these street-games are hardly elevating in tendency, to say the least. Froebel realized the enduring elements in them, and taught his pupils a series of games, absolutely true to nature; but avoiding such *motifs* as were not suitable to the age and understanding of the children. By these games they were to be led to study the fields and woods, and the living things in them, and thus the beginning of all scientific study by interested observation could be easily made. In all, the course was to be, from the contrasts to their connection, from disconnected parts to a harmonious whole.

In the Kindergarten Games the children are their own material, — personating birds, horses, sheep, dogs, etc., but in the work at the tables, they have material given them to be placed in orderly ways, or transformed in accordance with the idea which

they are struggling to express, — to make visible to others. As gesture comes before words, so *doing* is easier to an undeveloped mind than to express in language what it has done. Still, by this very doing, there dawns a clearer idea of that which is waiting for verbal expression. Here again Froebel followed "the order and course of Nature."

In the choice of the play-materials, too, Froebel has selected types of Form, as sphere, cube, and cylinder; and types of Color, as red, yellow, blue, green, orange, violet. The number of articles given to the child at one time is limited, so that the possibilties of simple objects in small quantities may be fully brought out before the greater number of objects increases the complexity of the problems presented for the child's solution.

Froebel's great aim was to give the child abundant opportunity for the formation of clear fundamental conceptions in every sphere of attainment, — to lay the foundation firm and true; for he had faith in the success of the after-building if the first stones were laid in the steady light of truth and right.

In the history of the race, men learned first the facts of form, color, time, number, space, and so forth; and then proceeded to systematize and arrange these facts in scientific order. Educators, then, must take "the order and course of Nature" for their guide; and follow her in this also.

And the evolution of the Kindergarten is not complete; nor will it be, until a generation of children can enter the kindergarten, passing in due time to the Primary School, the Grammar School, the High School, and the University, without once breaking the orderly sequence of their development. Through self-activity, guided into the right paths of action, with recognition of the wonderful harmony underlying all possible objects of knowledge, the great Law which proves to us how "All things work together for good" even through seeming discord and strife.

In silence mighty things are wrought —
Silently builded, thought on thought,
Truth's temple greets the sky;
And like a citadel with towers,
The soul, with her subservient powers,
Is strengthened silently.

— *Anon.*

OUTLINE COURSE OF STUDY IN HISTORY.

AS USED IN THE PUBLIC SCHOOLS, PENTWATER, MICH.

BY STUART MAC KIBBIN, SUPERINTENDENT.

THE Pentwater School is organized in three departments: Primary, first four grades or years; Grammar, second four grades; and High School, or last three grades. The grades are numbered consecutively from lowest, No. 1, to highest. Five and one-half, the average year of entering school, added to the number of the grade will give about the average age of any grade.

History is taught in the sixth, seventh, eighth, ninth, and eleventh grades, and an optional course in English History is offered in the tenth grade. As soon as the high school is developed sufficiently for a four years' course, optional courses in Greek and Roman History will be offered in the tenth, English History in the eleventh, and the present eleventh grade course will be required in the new twelfth grade.

I.

The sixth grade studies United States History, reciting twice a week, Tuesday and Thursday; length of recitation, thirty-five minutes; seventy minutes per week, out of a total recitation time of eight hundred thirty-five minutes; a total of seventy-eight recitations during the year.

The course is a study of the biographies of prominent Americans. Such biographies are chosen, in such order, and such matter presented as to give as complete an elementary view of National History as possible. The scholars learn about men of whom many have heard, when they lived, what they did, also some of the more important events and their dates.

The average child has no innate dislike for History. The method of teaching, and the subject matter usually taught, wholly unsuited to his mental development, creates an artificial dislike for the study. The child, from the time he first is able to understand discourse, delights in stories; but no story is interesting unless centered around an acting person, the hero or victim of the

narrative. At first the emotion of sympathy is easiest aroused, later, the child admires acts of personal achievement and success, and cannot read or hear enough of the deeds of adventurers, explorers, and soldiers. The reading of trash is in obedience to this law of childhood; a law the writers of juvenile literature and educators of childhood largely disregard.

It is intended in this grade to take advantage of this law. Incidents and facts, historically of no value, but of interest to a child, are read or related in the class. The lives of most of the actors in our Colonial History are made up of adventures and exploits, and may be made as interesting to a boy as an "Indian Story," and much history be taught at the same time. Not only are these stories related in the History class, but the stories read in the Language class for reproduction are largely concerning the characters studied.

This year the following are the principal biographies studied: Columbus, De Soto, Cortez, Pere Marquette, who was buried but twelve miles from Pentwater, Hudson, The Cabots, Capt. John Smith, Miles Standish, including some account of the Puritans, King Philip, Roger Williams, John Harvard and the schools of Massachusetts, Lord Baltimore, Penn, Mather and the Salem Witchcraft, Putnam, including the wolf story, Washington, including French and Indian war and Revolution, Benjamin Franklin, Robert Morris, Benedict Arnold, Hamilton, Boone, Lafayette, Jefferson, Fulton, Harrison, Jackson, with two latter war of 1812, Clay, Webster, John Quincy Adams, Calhoun, Scott and Mexican war, Jefferson Davis, Lincoln, not excepting almanac story, Grant, W. T. Sherman, Sheridan, Lewis Cass, General Custer, and Zach. Chandler, the last three being Michigan men. Others are introduced as circumstances may require. Also names of the Presidents and year of inauguration is learned. Probably objection will be made to the above list because it contains no names of literary men. Experience has proven that however proper it may be theoretically to teach of such men, it is useless, in a majority of instances, to try to do so. There is nothing in such a biography to interest a sixth grade scholar.

The superintendent furnishes the teacher a schedule of the biographies to be studied, the number of recitations to be given about each, varying with the importance of the person, and the points to be emphasized in each lesson. The teacher then writes

a short biography of the person, in plain, simple language. Monday and Wednesday the next day's lesson is dictated to the class. If more than one day is to be given to a biography, only the part to be recited the next lesson is to be dictated. At first this sketch was written on the blackboard and copied by the scholars, but the dictation method is believed to be preferable, because of the language exercise it affords. The teacher, when the dictation is completed, reads the exercise over with the class, explaining and illustrating and making sure that what has been dictated is understood. The lesson is then copied with pen and ink and preserved; the teacher taking pains to see that it is written correctly. This dictation is usually committed to memory. The next day at recitation the teacher sends a part of the class to the board to write sketches in review, or to draw maps, a part write on their slates. Individual scholars are called on to recite the day's lesson, and are thoroughly questioned to make sure they understand. Questions are asked which require thinking to answer, and very often such questions are left over till the next recitation. The class recites the lesson in concert. The teacher then, by questioning, leads the class to see what in the lesson is important and should be remembered if everything else is forgotten. This summary is written in the notebooks at the close of each biography and used for review. By this exercise the scholars are taught to summarize what they read, and the discipline proves valuable in other studies, notably geography. By the end of the year, very many of the scholars are able to summarize without assistance, and commit only a summary giving the biography in their own language.

The teacher also gives a part of each recitation to such miscellaneous work as she may judge of interest, descriptions of old manners, arms and costumes, modes of travel, customs, places, etc. Whenever necessary, maps are drawn; at first these are drawn on the blackboard by the teacher and copied by the pupil; later, the pupils draw their own maps in outline, the route or whatever it may be intended to illustrate being filled in from dictation. The instruction in geography is based on map drawing. Written examinations are held in history the same as the other studies of the grade.

II.

The seventh grade recites in United States History, Monday and Wednesday, alternating with the sixth grade. Events or

periods are studied, and individuals are considered only as actors in these events, it being assumed that the scholars know who these individuals are, but there is considerable brushing up of biographical knowledge by means of sixth grade summaries. Such topics as, The Discovery of America, Conquest of Mexico, Settlement of each Colony, and History of Massachusetts, and Virginia, Pennsylvania and New York, Canada, the Colonial wars and Revolution, by campaigns as parts of a whole, are treated in this grade in the same manner as biographies in the sixth grade.

These two grades are seated in the same room and recite to the same history teacher. The time of recitation, Friday, is wholly under the control of the teacher, and the use to which it is put is determined wholly by circumstances; the work of the two grades is kept as nearly parallel, and a very profitable exercise for both grades is a review of biographies by summaries.

In connection with geography this grade receives some incidental historical teaching. Seven of the ten months of the year are given to a study of the geography of the state and United States, the states being studied in detail. In connection with each state, mention is made of a few of the noted men of that state, and attention is called to places of historical note.

In the language classes much attention is given to the reproduction of stories read by the class as an exercise in composition. An average of one exercise a week is given in the reproduction of some historical narrative.

The reading classes can also be made auxiliary to this history work, and still fulfil their function as reading classes, but this course is not yet fully developed. It is expected that by next year at least a third of the reading will be auxiliary to history.

III.

The eighth grade studies United States History, recites daily throughout the year, and uses a textbook. The method of instruction combines a study both of biography and events. Lessons are assigned according to circumstances, sometimes by pages in the textbook, sometimes by general subjects or topics which the teacher outlines for the scholars, or they outline under her guidance, sometimes, though rarely, a topic is given and the scholars allowed to study it without guidance; this is done more for discipline in study than results in recitation. The grade also studies

English composition, Chittenden's Manual being used. The work is found to be a great aid to the history.

The first few weeks more attention is given to teaching the scholars how to study history from books than to studying it. The lessons are read over carefully by teacher and scholars, they reproducing, orally and written, and summarized for memorizing; these summaries being preserved, the scholars are gradually left to make their own summaries. A number of school histories, other than those used in the class are on the teacher's desk, with atlases and what miscellaneous works can be collected, and the scholars are encouraged to use them. They are given references to the books, not turned loose, and are expected to look up these references and recite on them. Occasionally matter is dictated to the class by the teacher. They are also taught how to use an index and look up information when no references are given. This reference work is of especial value in the study of biography, the scholars being required to write biographical sketches from material drawn from several sources. Maps are drawn to illustrate military campaigns, explorations and discoveries, routes of travel, and the growth and development of the United States. These maps are not copied, except that the outlines may be copied, but the details are drawn, at first from dictation, but they are taught to draw the maps from the information given in their histories.

A short sketch of State History and an outline of the organization of the Federal Government, and the more important provisions of the constitution completes the year.

IV.

The ninth grade studies General or World's History, recites three times a week during the year, Tuesday and Thursday being used for various purposes, to read maps, finish the regular recitations, review, or study, and receive individual assistance. The scholars provide themselves with textbooks, but they are expected to get their information by research, and not by studying a textbook. They keep notebooks and are required to take notes of what they read, and what is recited in the class, and receive a credit for these notebooks on their final examination.

The method consists of the statement of a subject or topic, it is outlined and references given for each subdivision; generally references are given by book and page, to save the scholar's time.

Allen's Historical Outlines, the tables in Sheldon's General History, and the outlines in the Teacher's Manual accompanying it are very valuable aids for the teacher in this work. Sometimes the scholars are expected to look up all the references, again, the references are divided among the scholars. A good plan is to divide the class into sections of three to five, giving each section a topic. This section, or committee, as some of the scholars call it, chooses a leader or chairman; the topic is subdivided among the individuals; each individual makes a report to his committee, who discuss, revise, and correct it, and embody the individual reports in a committee report to the class; the report is then discussed by the class, the teacher finally settling disputed questions, if possible. This work takes considerable time, but it pays.

When topics are divided among the members of the class, each scholar is expected to prepare thoroughly on his own, and get a general knowledge of the topics of the others from his textbook. These topics are assigned from a day to two or three weeks, or even a month before needed; but when assigned, a definite day is fixed for the report, at which time the scholar is required to submit his report, either in writing or orally from notes as a lecture. He is teacher for the time; he is expected to answer the questions of the class, explain his statements, state his authorities, and defend his conclusions. The scholars summarize this report and preserve in their notebooks, the individual investigations of each becoming the property of all.

Each term an essay is written by each member of the class on some subject, chosen by himself, relating to the term's work in History. Ample time is given, and subjects are chosen which require research. These essays are corrected, read in class, and credited on the term's examination in English.

While studying the history of a country, each scholar makes a list of books relating to its history. These are classified, and at the conclusion of the course the scholar has a very good bibliography of history. Considerable attention is paid to biography, especially in Greece and Rome.

V.

The history work of the school culminates in the eleventh grade in the historical study of our Government.

This course begins with an account of early Germanic institu-

tions, the transplanting of these to Britain, and the Anglo-Saxon Constitution; the Federal System, the Norman Conquest, and the effect on English Laws; the Petition of Right, Act of Right, Act of Settlement, etc., a brief summary of English Constitutional History to the American Revolution. Then is given an outline of English Law, the Constitution and Government of the Realm, Colonial Law and Policy, Rights of Persons, Law of Property, Wrongs and their Remedies, outlines being furnished and Blackstone used for reference.

The Declaration of Independence is then studied clause by clause; the evidence collected to prove the several indictments of the British Crown, and it is also shown wherein the rights of Englishmen were violated. This requires some knowledge of the colonies, their governments, the historical development of those governments, and usually results in a review of Colonial History.

The Nation is considered as beginning July 4, 1776, and governed successively by the Revolutionary Continental Congress, the Congress under the confederation, and the Federal Government under the Constitution. These governments, their powers, and their acts are successively studied. The Constitution as adopted, a purely Revolutionary measure, is then studied, and the changes in the governments of the individual states caused by the Revolution and the adoption of the Constitution. This is followed by a study of the Constitution in History, or it might be termed the History of the United States during the Constitutional period. The constitutional questions, amendments, the acts of the Federal Government, and contests between Federal and State authority are studied in chronological order. Committee work is done, individual topics are assigned, and essays written as in the ninth grade, such topics as, Tariff Legislation, Banking, New States, The Currency, Reconstruction Acts, Impeachments, The Public Domain, The Supreme Court, Inter-State Commerce Law, Trusts, were assigned.

The class in completion reviews the Constitution. Three recitations per week are given during the Spring term to State, Local and School Government, as a separate exercise.

No textbooks are used, though some of the class had "Johnson's American Politics," and found the work very valuable. The following works can be had for reference: Greene's English People, Hallam's Middle Ages and Court, History of England,

Bancroft's History of the United States, Von Holst's Constitutional History of the United States, Benton's Thirty Years' View, Blaine's Twenty Years in Congress, Greeley's American Conflict, Poore's Reminiscences, several volumes American Statesmen series, The American Encyclopædia, Blackstone's Commentaries, Cooley's Constitutional Law and Limitations, Statutes of State and United States, and Law Glossary.

The grade also studies American Literature, thus tracing the literary development of the nation. Some of the literature studied as Webster's speeches, and Lincoln's Gettysburg oration, add to the work in History.

VI.

This course of historical study which has been outlined is a growth; parts were adopted at a time, till after several years of experiment it has taken its present form. Some account of its growth and the development of the methods may be not without interest.

First, History was transferred to the eighth grade with the intention of lowering to the seventh grade, but this was found impossible, so it has remained in the eighth grade. The eleventh grade course was adopted and taught by the above method. The work of the ninth grade was very unsatisfactory, though probably as good as history classes average. It was suggested to try the same method with this grade in History as had been used with the eleventh grade in Civil Government. To this it was objected that the scholars were too young, that it would draw too much of their time from other studies, etc., but it was decided to try it. The great obstacle was, there was no library. A few volumes could be gotten from the township library, but very few. It was finally decided to appeal to individuals owning books. This was done, and a list of three or four hundred books was at the disposal of the class, including four encyclopædias. Only such books as were needed were brought to the schoolhouse, and returned as soon as used. Encyclopædias were left at the houses and consulted there.

After a brief account of the Aryans, the class began Egypt, and studied it twelve weeks, a disproportionate length of time for a high school, but it was necessary first of all that the scholars be taught how to study history. Rawlinson's Egypt, Rollin's

Ancient History, Wilkinson's Manners and Customs, Draper's Intellectual Development of Europe, geographies, atlases, etc., and a classical dictionary were used for reference. The time was well expended, for the class progressed very rapidly afterwards, and is now abundantly able to take care of itself, as far as work is concerned. Not only did it not interfere with their other studies, but they never before did as good work in them. There was a genuine revival in the class, which has continued to the present.

Not the least pleasant part of the first term's work was the fine series of essays written by the class. It was purely voluntary and without any suggestion or command from the teacher. They even volunteered to write the essays, and took great interest in their preparation. The essay work became thus accidentally a regular feature of the method.

The course was adopted for the sixth and seventh grade, in the hope that it would aid the eighth grade in its formal course in history. As to the result it cannot be stated as yet, except that it has stimulated considerable reading of history among the scholars of these grades.

[Sir Edwin Arnold sailed from San Francisco for Japan, Oct. 18, 1889. On the night before his departure he was entertained by the Howard Club of San Francisco, where he read this sonnet:]

A FAREWELL.

America! at this thy Golden Gate,
  New-travelled from thy green Atlantic coves,
  Parting — I make my reverence! It behooves
With backward steps to quit a queen in state.
Land! of all lands most fair and free and great —
  Of countless Kindred lips, wherefrom I heard
Sweet speech of Shakespeare — Keep it consecrate
  For noble uses! Land of Freedom's Bird,
  Fearless and proud! So let him soar, that stirred
By generous joy, all men may learn of thee
  A larger life; and Europe, undeterred
By ancient wrecks, dare also to be free
Body and Soul — seeing thine Eagle gaze
Undazzled upon Freedom's Sun, full-blaze!

EDUCATION IN THE STATE CONSTITUTIONS.

BY B. A. HINSDALE, PH. D., UNIVERSITY OF MICHIGAN.

II.

THE land endowments bestowed by Congress upon the schools of the West stimulated several of the old states to form school funds, by dedicating to them public lands and other state property or revenues. Connecticut was the first so to act. Her public schools date from the earliest times. At the very time that the Governor of Virginia thanked God that Virginia had no printing and no public schools, and prayed that she might not have them for one hundred years, the Governor of Connecticut said, "One-fourth of the annual revenue of the colony is laid out in maintaining free schools for the education of our children." Naturally, therefore, the State, in 1795, dedicated the proceeds of her Western lands, sold the next year for $1,200,000, to the use of schools. And in the constitution that took the place of the Charter in 1818, besides confirming the charter of Yale College, she declared that this fund should be perpetual, "the interest to be inviolably appropriated to the support and encouragement of the public or common schools throughout the state, and for the equal benefit of all the people thereof." In 1855, ability to read any section of the Constitution was made a constitutional qualification of an elector.

The example of Connecticut was followed by New York. That State initiated a school system in 1795, and a school fund in 1805. Still the Constitution of 1821 did no more than declare: —

"The proceeds of all lands belonging to this State, except such parts thereof as may be reserved or appropriated to public use, or ceded to the United States, which shall hereafter be sold, or disposed of, shall remain a perpetual fund, the interest of which shall be inviolably appropriated and applied to the support of common schools."

Nor in 1842 could the friends of popular education, after a hard-fought battle, secure more than this provision, which still stands intact: —

"The capital of the common school fund, the capital of the literature fund, and the capital of the United States deposit fund, shall be respectively preserved inviolate. The revenues of the said common school fund shall be applied to the support of common schools; the revenues of the said literature

fund shall be applied to the support of academies; and the sum of $25,000 of the revenues of the United States deposit fund shall each year be appropriated to and made a part of the capital of the said common-school fund."

The Literature Fund, by the way, originated in a series of lotteries drawn in 1801–1821. It will be remembered that some of the funds employed in erecting the first public buildings at Washington were obtained by means of Federal lotteries.

The only constitutional provision relating to schools that Delaware has ever had, is the declaration of 1831 that the legislature shall provide by law "for establishing schools and promoting arts and sciences." This is the most meagre recognition of schools found in the constitution of any state.

Rhode Island was even better contented with her colonial charter than Connecticut. But when the change came in 1842 she did not overlook schools. It was made "the duty of the General Assembly to promote public schools, and to adopt all means which they may think necessary and proper to secure to the people the advantages and opportunities of education."

New Jersey took some short steps towards forming a school fund in 1816, but it was not until 1844 that education was admitted to her constitution. Then the state said this fund should "be securely invested and remain a perpetual fund," and that the income, except so much as may be judged expedient to apply to an increase of the capital, should be "annually appropriated to the support of public schools, for the equal benefit of all the people of the state." Nothing has since been added to or taken from this requirement.

Before going farther, it is necessary to point out some forces that have greatly expanded the educational provisions of our fundamental laws. About 1835 there began a remarkable growth of interest in all matters relating to education and schools. The decade 1835–1845 witnessed an educational revival unexampled in the history of the country. That decade saw the first American normal school founded, the first teachers' institute held, the first school libraries created, and the first direct educational contact with the schools of Germany established The state universities began to assume definite form, and to exercise an appreciable influence. Mr. Jefferson's influence as a political philosopher also culminated. Faith in the sovereign people now touched its maximum; faith in legislators, executive officers, and judges tended to its minimum. Experience had revealed unexpected evils in the

working of the old state governments. Henceforth governmental powers and functions are defined in the state constitutions with new fullness and particularity. Legislation finds its way into the fundamental law. The public schools were becoming influential; their large revenues were an object of envy to the managers of schools not public; while the Catholic Church, the church most interested in a diversion of school funds, attained to large political influence. Hence arose the need of closely protecting the school endowments and revenues against sectarian encroachments. By and by the race question on the Pacific Slope and in the South aided in swelling the volume of constitutional school provisions. Quickening appreciation of the value of education, and the accumulation of great masses of ignorance and vice in the cities, have sometimes led to placing compulsory education in the organic law. Socialism, combined, no doubt, with fear of the publishing interest, has committed California to State publication of the textbooks used in the public schools. The woman question has made its imprint on the constitutions of Pennsylvania and California. The first of these states provides that women who have reached the age of twenty-one years shall be eligible to any office of control or management under the school laws of that state. California declares: "No person shall be debarred admission to any of the collegiate departments of the university on account of sex." Finally, mention should be made of the Franco-Prussian war of 1870, which, proving, as was at the time thought, the superiority of the trained man for all purposes whatsoever, gave education in the United States a distinct impulse. Together with the Civil War, that will soon be more particularly mentioned, these, we conceive, are the main influences that have caused many of the Western and Southern states to insert in their constitutions educational articles as extended as the school laws of the New England states a century ago. Whole educational systems are found in outline; state and county boards of education, state and county superintendence of schools, primary schools, grammar schools, high schools, normal schools, universities and agricultural colleges, the management of school lands and school funds, the collection and disbursement of school taxes, and the minimum length of the school year. In several instances, two full pages of Poore's "Charters and Constitutions" are occupied. New England, the Old Middle States, Ohio, Illinois, and some other states have not fallen into this current. But

even the Constitutional Conventions that have refrained from legislation in relation to schools, have often spoken a firmer voice than before. Indefiniteness makes room for clearness, and permission gives way to command.

It is impossible and unnecessary to summarize the educational articles that reflect the new tendencies. A feature or two in each case will serve the purpose of illustration.

Ohio, in the constitution of 1851, was the first state to guard her school funds against sectarian attacks. "No religious or other sect or sects shall ever have any exclusive rights or control of any part of the school funds of this state." Michigan has made the president of her State University a constitutional officer. Michigan has also fixed the salary of her Superintendent of Public Instructions at $1,000, as Wisconsin has fixed the maximum salary of hers at $1,200. Iowa has committed unusual powers to her State Board of Education, and the Secretary of this Board, as in New England, is the chief executive school officer of the state. Minnesota and Oregon, committing school legislation to their legislatures, have contented themselves with a minimum of constitutional provisions. No other state ever framed so many constitutions in the same time as Kansas; four in four years. Nor did she forget an adequate school system in any one of them, not even the one that bears the name of "Lecompton." Nebraska well illustrates a strong tendency seen in many states to augment the permanent school fund, and also to increase the annual school revenues. The first includes: The *per centum* on public lands sold granted to the state; the proceeds of sections 16 and 36; the proceeds of lands granted to the state, the objects of which have not been defined (as swamp and salt lands, the 500,000 acres granted under the law of 1841); the proceeds of all property coming to the state by escheat or forfeiture; also certain moneys, stocks, and bonds devoted to that purpose by the state. Then, besides school taxes, all fines, penalties, and license-moneys arising under general laws or local ordinances are appropriated exclusively to the support of schools.

The provisions of the Colorado article, which is very extended, in regard to the diversion of state funds to church schools, to the teaching of sectarian doctrines in the schools, and the non-requirement of religious tests in pupils and teachers, are very stringent. Here, too, the democratic spirit of the American common school

appears in its full strength. "Nor shall any distinction or classification of pupils be made on account of race or color." The Constitution of Nevada is the only one that requires any professor or teacher in the state schools, of any grade, to take an oath that he will support, protect, and defend the constitutions and governments of the United States and of the State of Nevada, that he will bear true faith, allegiance, and loyalty to the same, and that, since the adoption of the constitution, he has not been concerned in any duel, either as principal or as second, and that he will not be so concerned during his continuance in office. The remarkable book-publication section is not the only mark that Socialism has made on the educational article of California. Permission is granted to the legislature and to municipal and district authorities to establish high schools, evening schools, normal schools, and technical schools; "but the entire revenue derived from the state school fund, and the state school tax, shall be applied exclusively to the support of primary and grammar schools."

No other cause that ever operated in the field of our inquiry was so directly potent as the Civil War. The North believed that the sad lack of public schools at the South lay near the root of the Rebellion; and this belief had much to do with the development of Northern school systems and the expansion of statute-books. Nothing must henceforth be left to the possible hostility or indifference of legislatures, was the popular feeling. At the South the effect was far more striking. The insuperable obstacle to the Southern states' founding efficient school systems was now removed. Moreover, the enfranchisement of the blacks called loudly for their education. Nothing more strongly reveals Southern appreciation of the change that the war accomplished than the promptness with which those states have established schools and placed them under the shields of their constitutions. Some of them even recognized education in the constitutions that they formed in the confusion of 1865, when they were expecting their Senators and Representatives to be admitted to Congress in accordance with President Johnson's reconstruction proclamations. Two series of facts will measure the length of the stride forward.

Previous to the war, Virginia had simply provided, in 1851, for the application to free primary schools of one equal moiety of a capitation tax assessed on all white inhabitants twenty-one years of age and upwards, equal to the tax assessed on land of the value

of $200. Maryland had been wholly silent in the constitutions of 1776 and 1851. North Carolina had never taken a step beyond that of 1776. South Carolina had not mentioned education in any one of her several constitutions. Georgia never advanced or receded from the article of 1798. In her first constitution, framed in 1836, Florida simply said the school lands should be preserved and the proceeds applied to their proper object. Mississippi and Alabama, at the opening of the war, stood by the standards that that they had raised in 1817 and 1819. Louisiana in 1845, and again in 1852, directed her legislature to establish free public schools throughout the state, and to provide means for their support by taxation on property or otherwise. She also took care of the school lands, of which she had been so regardless in 1812. The Constitution of the Republic of Texas, 1836, made it the duty of the Texan Congress, as soon as circumstances would permit, to provide by law a general system of education. The beginning of a school fund was also made before Texas came into the Union. The State Constitution of 1845 recognized this fund, and directed the legislature to establish free schools throughout the state. Arkansas, in 1836, did no more than to provide for the school lands, and to direct the application of the funds arising therefrom to their specified objects. Tennessee, in 1834, and Kentucky, in 1850, recognized school funds that had already been created, and directed the appropriation of the income arising therefrom to common schools forever. Still the fact is, in no slave-holding state did a system of free schools exist in 1861.

All the former slave-holding states but Delaware and Kentucky have made new constitutions since the war. No one of them has omitted to make constitutional provision for education. Their educational articles do not suffer in comparison with the latest Northern constitutions. Some of these states have indulged in constitutional education quite as freely as the most ambitious young state of the West. Nor has the new State of West Virginia failed to rank herself alongside of her older sisters. At the same time, study of these Southern articles reveals the fact that these states labor under difficulties in providing school funds. Many of them, for example, levy for this purpose a capitation tax.

The educational articles of the various states show not only divergent views, but contradictory views. California has bound herself to a system of state-made school books. Colorado says,

"Neither the General Assemby nor the State Board of Education shall have power to prescribe textbooks to be used in the public schools." Minnesota has permanently fixed the State University at Minneapolis. Iowa has said, "The State University shall be established at one place, without branches at any other." Wisconsin has directed that "provision shall be made by law for the establishment of a State University, at or near the seat of government, and for connecting with the same, from time to time, such colleges in different parts of the state as the interests of education may require."

A more careful study than the present one would show a gradual improvement in the terms and conditions upon which the school lands have been granted.

Beginning with Ohio in 1802, and closing with Arkansas in 1836, Section No. 16, in every township, was granted to "the inhabitants of such townships," or sometimes simply to the "townships," "for the use of schools." The later practice, beginning with Michigan, has been to grant the lands to the state, for the use of schools. In both cases the lands have been vested in the state legislature, in trust for the specified object. Evidently the second rule is the more just and convenient. So the Indiana Constitutional Convention of 1851 merged the congressional township funds, together with certain other funds, in one consolidated Common School Fund. The School Law of 1852 directed the ratable distribution of the income of this consolidated fund among the counties and townships. Subsequently, both the state and the National Supreme Courts declared this provision of the law null and void, because repugnant to the terms of the grant, and the legislature in 1855, modified the law so as to preserve the integrity of the township funds. Again, since 1846, Congress has given Section 36 as well as Section 16, in every township, for the use of schools. And in the law relating to the admission of the four new states, approved Feb. 22, 1889, South Dakota is forbidden to sell her school lands for less than $10 an acre.

Touching constitutional provisions for education, Mr. Bryce has not written with the clearness of perfect knowledge. "In the older Northern constitutions, and in nearly all the more recent constitutions of all the states, ample provision is made for the creation and maintenance of schools. Even universities are the object of popular zeal, though a zeal not always according to knowledge. Sev-

eral Western constitutions direct their establishment and support from public funds or land grants."[1] Had Mr. Bryce looked into the matter more carefully, he would have seen that every state has recognized education in its constitution, that the older Northern constitutions generally say least upon the subject, that the new constitutions of the West and South, as a rule, contain the amplest provisions, and that every state west of Ohio, in fact, that every other public-land state, and some besides, has based its university on its organic law.

That popular education has taken a powerful hold of the American mind, could be inferred from these educational articles alone. There are few series of facts that so strongly illustrate the growth of interest in schools and the national faith in their healing virtue. Nothing short of grounding the schools on the solid rock of the fundamental law satisfies the public mind.

And yet it would be a great fallacy to suppose that the amount and quality of education furnished by the several states varies directly as the amount of space that they have assigned to schools in their constitutions. It will not do to conclude that the schools of Nebraska are superior to the schools of Minnesota because the one state has several times as much "education" in its constitution as the other. The New England States, New York, Pennsylvania, Ohio, and Illinois together do not occupy much more space in "Poore" than Colorado, Nevada, or California alone; and yet these states pay annually more than fifty-five millions of dollars for the support of schools, or nearly one-half the amount paid by the whole country. New York, the constitution of which demands no more than that the income of certain funds shall be applied to education, in 1887, appropriated thirteen and three-quarters millions to education.

It is important to observe that the educational articles in our constitutions are an effect as well as a cause of educational progress. In fact, they are more an effect than a cause. They are due to that very popular interest which creates and sustains the schools. They mark how high the educational tide has risen. Still we owe something to them, and possibly a great deal. It is not easy to say how much; it depends very much upon the particular question under consideration. The public intelligence will see that a system of public schools is provided in any progressive

[1] The American Commonwealth, I., 444, N. Y., 1888.

American state; but it may not protect the school funds against misappropriation, or keep sectarian instruction out of the schools. And yet, the first constitutions of Mississippi, Alabama, and Arkansas did not secure to those states the splendid endowments that the bounty of Congress had given them. The great trouble was, the utter want of a public-school sentiment in the Southwest, under the old *régime*. The American's constitution-worship is a common-place of political writers. No man is more gifted with civil capacity and political character than he, and no man trusts less to those qualities. He always wants plenty of "constitution." Still we cannot contradict Mr. Bryce when he says: "Although a constitution is the fundamental and supreme law of the state, one must not conclude that its provisions are any better observed and enforced than those of an ordinary statute."

It is also important to observe that constitutional provisions concerning education may be great evils. Many instances can be pointed out in which they have greatly injured the cause of education. The constitutional salary of the Michigan Superintendent of Instruction is $1,000, the legal salary of his chief clerk is $1,800; a state of things difficult to remedy, but one that has already led to a serious scandal. It is admitted that the California section in regard to the publication of textbooks has given the state inferior books. Nor can it be doubted that the limitation of the state school fund and the state school tax exclusively to the support of primary and grammar schools, thus making secondary education a matter of local charge, will, in the long run, work harm.[1] Such provisions can be readily changed whenever public sentiment demands change, if they are a part of the state school law; but to get them out of the state constitution will prove next thing to an impossibility. The Constitution of California furnishes yet another illustration of the evils that may arise from this source. It provides that the university "shall constitute a public trust, and its organization and government shall be perpetually continued in the form and character prescribed by the organic act creating the same, passed March 23, 1868 (and the several acts amendatory thereof)." The university is already suffering severely from this

[1] President Davis, of the University of California, has thus expressed himself on this point: "The cause of high schools was set back fully ten years by the barbarous provision inserted in the Constitution of 1879, forbidding the expenditure of the state school fund for the support of schools above the grammar grade. This remarkable provision has been more disastrous to the cause of good education in California than anything ever done in the State." — *Pacific Educational Journal, March, 1889.*

crystallization of "its organization and government," as prescribed in statutes more than twenty years ago; and it will unquestionably suffer still more severely in time to come.

A final illustration will be drawn from the history of Pennsylvania. Doctor Wickersham, the historian of education in that state, supposes that Mr. Pickering and those who acted with him understood that they were laying the foundation of a system of free schools, when, in 1789, they secured the provision relating to the gratuitous instruction of the poor. However that may be, the provision was long a most serious obstacle to educational progress. The rich and the well-to-do were long left to provide for themselves, and the public schools were called "pauper schools." Little argument is needed to show that such a system is necessarily bad. It is not until the public schools are planted on the principle that the property of the state shall educate the youth of the state, and all class distinctions as to them are broken down, that they command real respect and become thoroughly efficient. Pennsylvania escaped at last from this situation only by an ingenious legal makeshift. Says the authority just cited: "When the question of the constitutionality of the general system of education established in 1834 came before the Supreme Court of the state, it was decided in substance that while the constitution imperatively demanded the establishment of schools in which the poor should be taught gratuitously, it did not forbid the establishment of those in which all children, rich and poor alike should be taught."[1] And on this purely negative basis the school system of that state stood until the present constitution provided a better one.

Four new states are about to enter the American Union. Together, they will have common-school land endowments of about thirteen million acres. If in the conventions that form the constitutions of these states, there shall be some real educational statesmen, able to control their action, who will see that a few comprehensive and liberal educational provisions are introduced into them, and that legislation is left to the legislatures, the people of those states will long have reason for gratitude.

Since this article was put in type, the new Constitutions of North Dakota and South Dakota have come to hand. In their educational articles, they illustrate the apparent determination of the

[1] Wickersham: History of Education in Pennsylvania, 259.

American States to obliterate the old time-distinctions between constitutional law and statute law, except as to the greater difficulty with which the one is repealed. The constitution of the Northern State contains two articles and nineteen sections relating to the subject. The Constitution of the Southern State, a single article of seventeen sections. The number and minuteness of the provisions relating to the school lands suggests the question whether the members of these constituent assemblies, and the people of the two states, have any confidence in the good sense, judgment, and honesty of future legislatures.

The proper educational section of South Dakota is very simple and comprehensive. After reciting that the stability of government depends upon the intelligence and morality of the people, it reads: "It shall be the duty of the legislature to establish and maintain a general and uniform system of public schools, wherein tuition shall be without charge, and equally open to all; and to adopt all suitable means to secure to the people the advantages and opportunities of education." The six educational sections of North Dakota are much more specific, providing for all grades of instruction up to the college, uniformity of studies, and county superintendence. Considering the late tendencies, these sections cannot fairly be called legislation. We shall see, however, whether their detailed provisions are more efficient than the much simpler ones of the sister state.

Anxiety to plant the state school system on the solidest foundation has led, in North Dakota, to a constitutional novelty. After making it the duty of the Legislative Assembly to establish and maintain a system of public schools, Sec. 147 declares: "This legislative requirement shall be irrevocable without the consent of the United States and of the people of North Dakota." This we call a novelty. At least, we have no recollection of meeting a constitutional provision making it impossible for a state to change a common legislative requirement without the consent of the United States. It has been supposed that the United States has nothing to say about such questions. We shall be curious to see what the constitutional lawyer will say to this new departure.

NOTHING will ever be attempted, if all possible objections must first be overcome.

THE TEACHING OF MATHEMATICS.[1]

VIII.

THE POSITION OF GEOMETRY IN PRIMARY EDUCATION.

BY HENRY L. COAR, SPRINGFIELD, MASS.

IN these days of rapid advance in all scientific training, of improved methods of teaching, the persistency with which one adheres to the old paths of teaching the science of mathematics, especially in its elementary branches, seems indeed surprising. To this is greatly due, that we are developing a class of students who are not close mathematical reasoners, and whom it therefore benefits little, to devote so much time to this branch of science. A glance through the various textbooks of elementary mathematics, a visit to many classes in arithmetic, and geometry or algebra, cannot but convince one, that we have not brought our methods of teaching these branches into unison with the natural development of the pupils. It seems therefore rational that an effort in this direction should be made, and the introduction of geometry into primary work, I believe, will offer the key for solving the problem. Some suggestions, both theoretical and practical, that have come to me in my experience as a teacher, may throw a little light on the subject and be of use to others.

It was Froebel who first successfully solved the problem of the early education of the child. He recognized that in the beginning of his mental development he does not yet reason, but simply gains impressions, that at first, therefore, the senses must be educated, and that it is only after the seventh year, when the brain has begun to harden, that the reasoning powers come more fully into play. Upon these facts he based his educational work, and in his system of the kindergarten he seeks to give to the child the material by which his senses and powers of observation should be educated in a natural and rational manner, so that only correct impressions may be gained. In the course he prescribes the child becomes familiar with simple geometrical forms and with simple

[1] Copyright, 1889, by Eastern Educational Bureau.

numbers. No pressure is brought to bear on him, but according to his psychical and physiological development, largely in well-ordered play, he learns to distinguish between various bodies. Balls, cubes, and the allied bodies, are chosen, not without intent, for in these are demonstrated some of the fundamental principles and relations of force and matter. By means of judicious questions the child is led to notice the various properties of these bodies, he is encouraged to ask questions, he learns to model these bodies in clay, to divide them in various ways, and he thus obtains a familiarity with some of the essential properties of matter. Though he may not be able to give a definition of points, lines, angles, triangles, rectangles, and the various solids, he will nevertheless be able to tell each of these at sight, or, if requested, to model them in clay or to draw them. An important conclusion may be deduced from the fact, that a child may acquire all this before the end of the seventh year. With the eighth year, he no longer is content to simply gain impressions, but the desire to analyze them begins to manifest itself to a greater extent: the reasoning power asserts itself. It therefore now becomes the duty of the teacher, not simply to continue to train the power of observation, but to develop the child's mind in such a manner, that the reasoning capacities may have their normal and natural growth. The study of Language is necessary, to enable the child to properly express his thoughts in speech and writing; other studies are necessary, to enrich the mind with material for thought; the study of Mathematics is necessary, to train the mind, that it may carry out a course of reasoning logically and concisely, and may thus learn to draw correct conclusions from given facts. It will, therefore, be the first requisite to present this study logically and according to its natural development, and at such a time when the child's mind may be best suited to cope with the subject. That we may best recognize when these various conditions are fulfilled, it may be well to examine the scope of the studies of Arithmetic and Geometry, and the relations they bear to one another.

In Arithmetic we have to deal with numbers and the various manipulations which may be performed with them. Now the idea of number is inherent in nature, for wherever we look about us, we see a multitude of things. The child sees one sun, one moon, but many stars, and he observes a difference in number; he will play with one leaf, but will notice the many leaves on a tree.

Thus he early learns to distinguish between one and many, and will soon also acquire the power of perceiving that number may be increased and diminished. All these are, however, natural phenomena, independent of any system of numeration, and therefore easy for the child to understand. But the moment we use our numerals and the decimal system, we depart from the natural to the invented or artificial. Nevertheless we must have some definite means of expressing number and the various manipulations involved, and in the decimal system of numerals this problem seems to have been solved in the simplest and happiest manner possible. As a necessary tool, therefore, the child must become familiar with this, but he can and should be taught the principles involved in addition, subtraction, multiplication and division, in a concrete manner, without the use of written numerals, and he should be perfectly familiar with these principles, before attempting any written examples. He must, for instance, first be able to count six apples and to divide them equally among two playmates, before he will be sufficiently advanced to divide the abstract number 6 by the abstract 2; for the latter manipulation in the abstract must be translated into the former concrete, for which a thorough knowledge of the fundamental principles is requisite. The first great difficulty we meet with in teaching Arithmetic is then, to train the child's mind in such a manner, that he may be able to readily perform such a translation from the abstract to the concrete. But greater difficulties arise as we proceed in the study and come to long division and to fractions. With the latter, we meet with one of the greatest obstacles, and long and patient perseverance and study are necessary, to make a beginner familiar with them and at home with their use. It is the artificial form, the necessity of distinguishing between numerator and denominator, which causes the trouble. Then come the manipulations that are involved in various business transactions, as per centage, simple and compound interest, the various forms of discount, partial payments, etc., where in some instances it is impossible to see any logical reasons for the rules. And when we finally reach the extraction of roots and mensuration, does it not seem absurd to think of teaching these various manipulations, which involve some of the most difficult and complex propositions and developments in Geometry and Algebra, to children who have not even commenced the study of Plane Geometry? Is it, then, in the least

surprising to find, that after the minds of the pupils have been stocked for a number of years in this manner, they should evince a dislike for Arithmetic and should not have gained the greatest amount of good possible from this study? Two conclusions may be drawn from the foregoing, first, that Arithmetic is not throughout capable of a perfectly natural development, and secondly, that in many of its branches it is taught at an age, when the minds of the pupils cannot be sufficiently developed to cope understandingly with the subject.

In Geometry, on the other hand, these difficulties do not assail us. The form in which this science finds expression is perfectly concrete and natural, based on points, lines, angles, triangles, etc., all of which occur in nature, as in the various crystal forms. Furthermore, the demand made of the pupils is simple and rational, for they are to study the inherent, natural properties and relations of these figures; while, finally, we have the possibility of developing this study logically, step by step, from fundamental principles. Now if a child could in the kindergarten become acquainted with the forms with which Geometry deals, it seems but rational that such a system might be extended, so that at a little more advanced age, certainly at a much earlier age than is usually done, he should be able to study to a greater advantage the properties of these figures and their relations to each other. A child, for instance, has become familiar with triangles and knows that they have three angles. Wherefore should he not easily recognize and reason out the fact that the sum of these three angles is always equal to two right angles? Why should not a child of the age, when he takes up the study of fractions, be able to understand and to demonstrate the above proposition without any difficulty? I am confident, and in this actual experience has sustained me, that a child can more readily understand the geometric proposition, than the rules for multiplication, or division of fractions by fractions. If any doubt this assertion, I will ask them to explain logically and step by step the common rule, "to divide a fraction by a fraction, multiply the dividend by the inverted divisor." After they have carried out this explanation carefully, and are thoroughly familiar with the reasons for the rule, let them present their course of reasoning to a class of children of the age at which this is ordinarily taught. How many of that class, do you think, will comprehend them? I doubt if any would be mentally developed to an extent which

would enable them to carry out the same line of reasoning again. You have then, as a consequence, that the children have an explanation forced upon them, which they cannot understand, or, as is usually the case, receive no adequate explanation at all. But one is as bad as the other, for in either case they learn to carry out these manipulations by rote, and the naturally questioning attitude of their minds is suppressed and stunted, instead of being increased and led into proper channels. Is it, however, the end of education to make so many machines, which shall be able to perform a certain work, or are we teachers to train and educate the pupils entrusted to our care, to become reasoning beings and seekers after truth? Would we ourselves, at our present stage of development, be satisfied with an explanation which would not convey anything definite to our minds? If, for instance, we should enter a class in Calculus without any knowledge of the lower branches of Mathematics, we could not understand the principles of the study, and though by patient work we might learn to differentiate certain expressions, we would eminently prefer to give up this study for the present and first to acquire the necessary preliminary knowledge. That is about the position in which all classes in Arithmetic are placed whenever the attempt is made to teach them subjects, the reasons for which they cannot understand; and, though, through the patient drill of many years, the pupils are taught to carry out the various manipulations demanded in this science, the chief aim of the study is, to a great extent, frustrated and much valuable time is spent to instil these principles, which, at a more advanced age and after more preparatory work, could be taught in less time, with less trouble, and above all, more rationally. These conclusions I had reached theoretically, after a careful study of methods and textbooks in various countries, when it became my good fortune to test them in practice.

I had in my charge a class of boys, of the average age of twelve years, many of whom could not solve simple examples in fractions, and none of whom had a clear idea of the reasons for their work. Feeling confident that it would be a waste of time to adhere to a course in Arithmetic with them, without giving them something else to develop their reasoning powers, I introduced the study of Plane Geometry. About half of the weekly allowance of time was devoted to the latter study and half to Arithmetic. From the beginning it was remarkable to notice the greater interest shown

for Geometry as compared with that shown for Arithmetic. At first it occurred to me, that this might be due to the fact that the study of Geometry was new; but as time went on and this interest remained undiminished, I could only ascribe it to the fact that the study was more adapted to the mental development of the boys.

But a second fact worthy of attention, may be recorded. This class of boys, who as a rule were poor in Arithmetic, and found great difficulty in comprehending arithmetical reasoning, seemed to thoroughly enjoy the study of Geometry. They followed the course of reasoning rationally and with understanding, they were able and eager to reproduce it, they would detect and correct flaws in the reasoning of others. These facts gain a greater significance from the following, that in no case were they allowed the use of textbooks. Nor was the advance in the class confined to those pupils who had the best record in Arithmetic. On the contrary, some of the boys who stood lowest in Arithmetic were the most apt in Geometry, and there was no really poor pupil in the class. Such a progress in the line of mathematical induction was not without its good results, for as the reasoning faculties were thus increased, there was a very noticeable improvement in the class in Arithmetic.

Another significant fact, upon which perhaps the greatest stress may be laid, was this: that the study of Geometry seemed to awaken within the pupils the power of applying material, already acquired, to a proper end, and of thinking independently. This should be the ultimate and highest aim of all educational efforts. One instance out of many, as an example, will show what I mean. The class had just proved the proposition, that the angles opposite the equal sides of an isosceles triangle are equal, whereupon I asked, if any could prove that all the angles of an equilateral triangle were equal. After some thought, several hands were raised, and I called upon one of the youngest, a boy of eleven years, to attempt the proof. He promptly responded, carried out the proof logically, applying correctly the former proposition, and without any prompting. Here we have, then, several practical results of importance, a class of young boys studying Geometry with great interest and understandingly; in consequence taking a greater interest and improving correspondingly in Arithmetic; showing a mental development and a growth of the reasoning faculties, which hardly would have been attained otherwise. I felt

confident before, I feel sure now, that good results may be reached in this way, that the hostile attitude of many toward Mathematics may be entirely changed, and that the mental development will be more normal.

As to the question of the proper time when to begin the study of Geometry, it may be considered open. Geometry can be introduced, as I have demonstrated, at about the eleventh or twelfth year, possibly sooner, and for a certainty the study of fractions should not be taken up, until some such training has preceded it.

I come now to the consideration of how the study of Geometry may be presented to the pupils at the early age mentioned, in such a manner that they may readily comprehend it and may constantly be interested. I will not attempt to give any definite method, believing that any teacher with a thorough knowledge of the subject can best evolve his own methods, but will confine myself to some cautions and hints of a general nature, which I have found useful in my own work. In the first place, an emphatic caution against the use of textbooks will be necessary. These would be most pernicious in the hands of young pupils, and would effectually defeat the chief end of the study; for the children would soon learn to rely on the book, and not on their own abilities, and would thus fall into the very habits we wish to avoid. A teacher should find a textbook unnecessary; for a teacher who has not so digested the study, that he or she can develop it without the use of a book, or a teacher who is dependent on the proofs of the book, is not a fit person to undertake teaching Geometry to such a class of young beginners. The first essential, then, for success, is a thorough and philosophical knowledge of Geometry, together with a quick perception of ways and means. A second caution I found necessary, was not to attempt to give the pupils too much, or to advance them too rapidly, though the advance should be sufficient to constantly necessitate some mental effort. Many propositions and definitions are given in the ordinary textbooks, which it would be well to omit at this stage, many applications and extensions not found in the books, it will be well to bring in. We can thus adapt the study to the development of the children, and can teach them the principles involved in a given proposition, without harping on this proposition, which would tend to weaken the interest. It is to be able to illuminate a principle in this manner, that a teacher should have a quick perception of ways and means.

In all geometric work of this nature it will be found most effectual to proceed synthetically. We may start with the idea of points, showing how they may be connected in various ways, and thus come to the idea of lines, when it will be necessary to demonstrate, how they may be divided, how they may vary in length and direction. In all this work it is well to let the children themselves draw the various figures, learning to letter them in the conventional manner. Practical demonstrations will also be of great help, for which the walls of the room, their lines of intersection and corners, or wooden cubes, octohedrons, etc., and natural crystals offer ample opportunity. The various relations and properties to be studied should be discovered by the pupils themselves, with the aid of judicious questions on the part of the teacher, and it is only after they have been discovered and fully comprehended, that their definitions should be given.

From the relations of two straight lines to each other, which would bring in angles and the various propositions relating to them, we would come to the relations of three straight lines and thus reach the triangle.

The above indicates sufficiently, I believe, how the study may be built up and developed. Considerable work will be necessary on the part of the teacher, a careful study of the pupils, and a rational adaptation of the subject to their needs. But the result will justify the trouble, for a conscientious teacher will find himself surrounded by a class of intelligent and bright pupils, ever ready to ask questions, but questions as to the rational why and wherefore of things, children who will have their eyes open and be able to recognize the relations between cause and effect.

SUNLIGHT.

BY G. T. JOHNSON.

Oh, the sunlight! the beautiful sunlight!
Shining in at the open door,
Dispelling sadness and bringing gladness,
Creeping, creeping, along the floor.
Ah, how merrily! ah, how cherrily
Drifts it in with the spring-time air.
Search forever, yet you will never
Find, of things earthly, aught half so fair!
Softly peeping, silently creeping
Into our eyes, into our hearts.
Oh, the sunlight! the beautiful sunlight!
Leaves us better when it departs.

CIVIL GOVERNMENT IN THE SCHOOLS.

BY FRANCIS NEWTON THORPE, PH. D.

NEARLY a century ago, Madam de Staël said in one of Corinne's letters: "The Government of a nation forms its Character." The political experience of the century leads us to reverse the dictum and read it: The character of a nation forms its government. It is our purpose briefly to state our opinion concerning the place of the study of civics in our schools and the goal towards which the study should move.

Civil government in this country belongs to the ancient Teutonic kind, which developed a thousand years in England, and was then transplanted to America. It has been experimental rather than theoretical, and has changed in its civil phenomena from time to time, passing through the phases of feudalism, limited monarchism and representative democracy. To us the first and the second phases are of historical interest; the third divides into two periods, the first, of organization, the second, of administration. The period of organization may be considered, again, in two ways: in a National sense, in the organization of the Federal government, and in a local sense in the organization of the state governments. While civil government in this country was yet in form a limited monarchy, it was constantly encroached upon by an irresistible democracy. The result was a representative democracy. All the colonial governments were of mixed character; in the English national sense, they were of a limited monarchy; in the American local sense, they were of a representative democracy. The revolution as a civil phenomenon was of a national, not of a local type. The colonies became states as it were by merely a vote of the various colonial legislatures, but the government of the United States was an embodiment of the will of the nation. It was formed by the people as a federal unit, and by revolution took the place of the king in Parliament. There was a general concensus of opinion among the members of the Philadelphia Convention of 1787, that a supreme legislative, executive and judiciary should be established. After the adoption of this resolution, the work of the convention was to arrange the details of the Constitution.

In fixing these details the convention followed in general the lessons of civil experience already learned in colonial times. Eleven of the states had already framed constitutions, and in this mine of constitutional organization the convention labored boldly and re-enacted in the constitution for the nation the best provisions found in the constitutions for the states.

The Federal Constitution was not made at a single stroke; it was the result of long civil experience in England and in America. A century of experience under this constitution reveals that those provisions in the Federal constitution which were based upon the test of experience have prescribed civil rights and duties whose observance may be said, generally, to have been recognized without commotion, harmoniously, acceptably, while those provisions based upon theoretical views, such as the provision for presidential electors, have never given satisfaction. The last five amendments to the Constitution of the United States are sufficient to prove that the government is determined by the character of the people. In those amendments may be read in the most solemn form the experience of the people of the United States during the first century of their national history.

These five amendments embody the experience of the American people in the solution of the great civil problems of the century:

1. The inability of a state; resulting in a provision in the Constitution which seriously imperils the legal right to enforce the moral responsibility of a state.

2. The manner of choosing the President and the Vice-President; resulting in a provision which has seated four chief magistrates who did not receive the greatest number of popular votes, and which is a cause of popular irritation every four years. This problem will ultimately be solved anew.

3. Slavery; resulting in its abolition.

4. Citizenship; resulting in a definition of federal citizenship and of state citizenship.

5. The right of suffrage; resulting in the dictum that a state determines the conditions under which a citizen of the United States becomes an elector.

From this brief reference to the Federal Constitution we conclude that national experience determines the character of the national constitution. In other words, the organization of the federal government was based upon colonial and early state expe-

rience; but the administration of that government has been determined by the experience of the people since 1789.

It is this principle that the organization and the administration of civil government follow civil experience that we think of a fundamental nature in teaching civics. Government is not a term describing a permanent, unchanging factor in human affairs. Government is only a ceremonious expression of hard experience in the direction and control of human interests founded in human rights. Government is itself a change in organization and in administration which follows, generally far in the rear, the experience of the people.

This principle is more abundantly illustrated by the numerous constitutions which have been framed by the various states. If we include the constitutions framed by the four territories now organizing into states, one hundred and twenty-nine constitutions have been adopted by the two and forty states of the Union since 1776. The number adopted by a state varies from one in Massachusetts to six in Georgia, and each state has proposed and the majority have adopted various amendments from time to time. It is true that the making of constitutions has been the regular occupation of the Americans, but this occupation has not been a mere pastime. Experience has compelled constitutional changes. This experience forges the link between American history and American government, and the place of these two studies is side by side in the schools. It is as a solemn experience of the people that civil government is to be studied, not alone as the solution of a scheme for winning votes. The state governments were organized, and, in some cases, for many years administered, on a narrower plan than the federal government. Numerous restrictions limited the people. Religious and property qualifications prevailed in the majority of the original thirteen states, and did not wholly disappear till the first quarter of this century had passed. But the experience of the people was not limited to that of the freedom of the right to vote; it extended widely into affairs. The earlier constitutions made no provision for that elaborate economic life into which the Americans moved. Canals; railroads; corporations; inventions affecting social life; the development of educational, charitable and reformatory institutions; the acquisition of the public domain and the general civilizing movements of the world, effected radical changes in the state constitutions in conformity

with the experience of the people. In some states the changes in the people led to a new state constitution, as in Pennsylvania in 1838, — occasioned chiefly by the growth of corporations, and specially of the banks and of the railroads. In other states, as notably in the southern states in 1865, new social conditions compelled new constitutions in eleven of the states. The periods when public experience has led to fundamental changes in the civil government of the states may perhaps be grouped as follows: —

1. 1776–1789. The revision of colonial into state government; the constitutional provisions being based upon colonial experience, and illustrating the authority of governmental principles based upon local, representative democracy.

2. 1789–1835. The rise and fall of the idea of religious and property qualifications as necessary to the exercise of the franchise. The earlier constitutions had generally embodied these provisions. The disappearance of them was chiefly due to the rapid spread of the principles of a "free democracy," advocated by Jefferson and his followers, and first embodied in constitutions when the states west of the original thirteen were organized.

3. 1835–1860. The response of constitutional conventions to the popular demand for provisions regarding internal improvements characterizes the civil phenomena of this period, and the approaching struggle between free and slave institutions is discernible.

4. 1860–1865. Slavery and anti-slavery re-wrote nearly all the state constitutions. The supremacy of the federal government was formally set forth in state constitutions for the first time in our civil history. The constitutions of this period made by the seceding states illustrate the extreme opinions of the slaveocracy and of men advocating states' rights doctrines.

5. 1865–1889. These constitutions embody the experience of the people in attempting to solve the problems, *inter alia*, of the suffrage; the relation of the state to corporations; the functions of the state in such matters as education, internal improvements, transportation, immigration, public charities, public lands, the power of the legislature, of the governor, and of the judiciary, etc. The recent debates in the conventions of the two Dakotas, of Montana, and of Washington, illustrate directly the demands of the people of those territories as interpreted by experience. A peculiar feature of the Dakota debates is the evident desire of the conven-

tions to anticipate some of the evils of over-legislation by limiting the powers of the legislature and increasing the powers of the executive — a desire born out of the complaining experience of some of the eastern states from which the delegates to the convention originally came.

We might further illustrate our views by showing that not only the organization of our governments, but also the administration of them, is after experience, not after theory. The administration of government is the opportunity of political parties and gives rise to their platforms, their books, the speeches of their orators, the opinions of their newspapers, and the expenditure of their wealth and their energies in campaigns.

It is our desire only to call attention to the place and the purpose of the study of civil government in our schools. We do not believe that the critical examination of the text of a constitution is the best manner of beginning the study of civil government. We would approach that study by the path of experience. We would attempt to know and to teach that constitutions and the entity which we call "government" are the records of hard experience. We may consider such a constitution and such a government as a civil monument, but a monument of interest to us only as it is, or has been, the expression of human wants and of human satisfaction. Constitutions are the clothes of government and change with the changes in the people. Sometimes they seem to change to a worse fashion, sometimes to a better, but they change, and usually with the ideas of each generation. It may safely be said, that each generation in America revises the frame of government. Upon closer examination we discover that it is in the administration rather than in the organization of government that these changes are made. But whether in administration or in organization, the change indicates the pulse of public experience.

It follows, then, that the purpose of studying civil government in the schools is to understand the past, and, if possible, to interpret the present and the future. Young pupils, those in public schools, may learn the story of civil experience in the technical schools, and in a truer sense, in the school of daily life, we may learn what changes in our governmental affairs are desirable and imminent. From the nature of our civil institutions we must be always revising them. Great social, industrial, political and moral questions remain unsettled. These questions find solutions, or

attempted solutions in the work of constitutional conventions and of legislatures; some of which, like the recently proposed prohibitory amendments in New Hampshire, Massachusetts, Rhode Island and Pennsylvania, indicate changes in the relations of the state to certain great interests which the people are earnestly seeking to make. Whatever form this public thought may ultimately take, whether in a constitutional amendment or in a fixed custom of legislative enactment, from time to time to meet public exigency, the principle of the response of popular government to popular demand will be illustrated.

We have purposely confined ourselves in this paper to the examination of the dictum of Madam de Staël, and having reversed the dictum have sought to indicate a method in the study of civics. We would teach civil government as the record of civil experience, and we would awaken in our students the vital realization that they are a part of the experience of the future which will organize anew and administer the government. We would have one great end in view: This government, state and federal, is the government of the people, and we are a part of the people. Self-responsibility is more apparent when we discover that our lives in their civil phenomena solidify for a time in civil government. "The state," said Emerson, "was once a private thought"; in teaching civil government we would have the state again, in every mind a private thought, and that thought should be nurtured and should bear fruit in individual life and in public life. When civil government becomes to each of us only the formal record, the outer casing of a living organism, *the state*, growing with our growth, decaying with our decay, based upon human experience and dependent upon the will of men and of God, then, and not till then, will every citizen be a high priest, serving in the sacred interests of government.

So here hath been dawning another blue day!
Think! wilt thou let it slip useless away?
Out of Eternity this new day was born,
Into Eternity at night will return.
Behold it aforetime, no eye ever did;
So soon, it, forever from all eyes is hid.
Here hath been dawning another blue day;
Think! wilt thou let it slip useless away?

— *Thomas Carlyle.*

APHORISMS; FROM THE GERMAN OF HEINRICH BYRON.

TRANSLATED BY HERBERT E. JENNESS.

TRUTH hits the mark; falsehood rebounds and strikes him who utters it.

ILL-TREATED children and oppressed peoples are apt to have their reason and sensibilities dwarfed and blunted.

TEACHERS sow in young minds, seeds whose fulness of blessings can never be known nor even estimated. What a noble calling!

WHAT agriculture is to the soil, education is to man. How much fruit, then, may be taken from the uncultivated human mind?

LOVE is the sun of life; train thy child in love and it will, like a flower in the broad sunlight, unfold and flourish most naturally.

As man polishes the rough diamond, and shapes a divine form from the rude stone, so we shape and polish human nature by education.

NOT all those who are called teachers teach the most or the best. The words of the wise and the deeds of the noble instruct mankind.

THAT which the world calls education is often only mechanical, for mere drilling makes one more dexterous, — but true education should make us nobler.

ONE may be born with a defective intellect as well as with a crooked physical member. But generally the young mind may be given the right direction by a corrective education.

POWERFUL is habit — the force of perseverance — in the moral and spiritual world; and for that reason education effects such a transformation of mankind, — because it is a selection of proven habits.

EVEN in the noblest endeavors to educate mind and heart by the continual acquisition of fresh knowledge, some degree of selfishness steals in. We often think only of learning, when we might also instruct; we forget in the high enjoyment of enriching our spiritual selves the still higher pleasure of imparting to others of our accumulated treasures. Man before books.

EDITORIAL.

THE Professor-Poet Longfellow never said a better thing, more profitable to be pondered by all teachers, than this: — "Perhaps the worst thing in college-life is this having your mind constantly a playmate for boys — constantly adapting itself to them instead of striking out and grappling with man's mind."

PROFESSOR BOYESEN, of Columbia College, N. Y., has, evidently, a limited acquaintance with the more substantial class of American young women, if his recent wholesale characterization of them in the *New York Independent* is anything more than an attack of masculine professorial spleen at some disagreeable experience of fashionable young ladyhood in the metropolis. The Professor speaks in his usual positive manner, of "the extreme disinclination for manual labor which characterizes American girls, and the false and flimsy ideals of the majority of them." This he attributes, "in a large measure, to the academic character of our public school instruction." Taking these assertions in their order, we would ask, first, what the Professor means by "extreme disinclination to manual labor"? Would he have intelligent American girls work in the fields, carry burdens, and generally become the slaves of men, as among the European peasantry? The average American girl accomplishes five times the quantity, and a far better quality of work than her European sister, because she is sufficiently instructed and capable to use the labor-saving machinery, which, in one generation, has lifted woman above the bondage of drudgery and added more than a hundred new ways of earning a respectable living to her opportunity. American girls, North and South, East and West, within the past twenty-five years, have shown themselves thoroughly competent to face the emergencies of a revolutionary epoch, whatever sacrifice or toil might be demanded. A vast influx of young women, of the humbler sort, from Europe and the Canadas, and a corresponding multitude of colored southern girls, have naturally filled the realm of unskilled labor and crowded the intelligent American girl, of every national descent, upward, in search of fit occupation. A professor of an American college ought not to be ignorant of the splendid record the American young woman has made in the enlargement of her area of occupation and her skill and energy in meeting the demands of the situation.

That there are too many weak-minded girls, with "false and flimsy ideals of life," nobody disputes. But the man who attempts to fix this stigma on the majority of American young women, has evidently left his heart behind him, and brought only his brains and a very narrow social observation to bear on American society. The "ideal" of American womanhood cherished by the average public school girl is not an ideal to be mocked and sneered at, even from a Professor's chair. And, while we heartily commend a certain amount of training of the hand, yet it is just this "Academic training" — the opening of the grand world of science, literature, philosophy, mathematics, and languages — to the young womanhood of our country that has made her such an important element in the life of "the grand and awful time" in which her lot is now cast. Professor Boyesen will write better things of American girls when he knows them.

IN the Boston School Board, Mr. Chapin recently introduced an order, that some plan should be reported by which the public schools can be brought to a much higher standard of etiquette than at present. Possibly he has been moved by the recent declaration of our Olympic friend, the educational man of the *New York Evening Post*, who declares that manners are grossly neglected in the common schools which "do nothing, or next to nothing." "Little or nothing is done in the schools to combat the mischievous delusion that suavity of manner is a confession of social or other inferiority," etc., etc. Now, of course, among the three or four hundred thousand common school teachers of the United States, two-thirds of whom work for smaller wages than trained house servants or skilled mechanics, there are a good many who are incompetent to train Young America in the politeness which Doctor Johnson called "religion in little things." But every profession is only fairly judged by its upper stratum and by the spirit of progress pervading it. Tried by this standard, we are inclined to think that it would be difficult, even in respectable Boston, to find a class of people who are doing more, by precept and example, to teach and inculcate "gentle manners," than the large majority of teachers of both sexes. The Boston School Committee should enforce the duty of dropping every teacher, however high his position, who falls below the standard of which the majority of these public servants are a notable exemplification. The chronic ignorance of our New York contemporary concerning public school matters, North and South, was never more conspicuous than in the absurd charges we have quoted. Outside the class of well-behaved people, larger in this than any country, the common school teachers, including the better sort of private school instructors, are doing more to improve the manners of several

millions of American children than all other agencies combined. Compare the behavior of the children in the lower wards of American cities; in the rougher portions of the open country; including the one million colored children and youth of the South; in their homes and their out-door life, with their condition while under the control and immediate influence of their school teachers. It requires some assurance to insist that a school mistress, in one-fifth the hours of one-third or one-half the days in the year, should be expected to counteract all the rough, boisterous, and "uppish" tendencies of all the rest of the time and hostile tendencies from every other quarter. Beside, what do we mean when we speak of the bad manners of American children? The most unruly of them are the neglected youth of our emigrant class; who, amid the toils, trials, and confusion of an entire change of environment, lose the habit of European authority and are not competent to train their families in the broader, less restrained, and superior type of republican manners. Good American citizens are not to be made by the crowding down of childhood even to the verge of mature life in the ordinary European style. Out of that sort of politeness comes servility, exploding into disorders that shake the foundations of society. We want no imitation of that style of etiquette as a preparation for good American citizenship.

SCHOOL RANK AND MENTAL CAPACITY.

THERE appears in the May number of EDUCATION an article entitled "School Rank as an Evidence of Mental Capacity," which is intended as an answer to my article, "The Relative Mental Capacity of the Sexes," which appeared in the March number of the same journal.

Mr. Frederick H. Fernald, the writer, ingeniously, though not vigorously, attempts to criticise my paper. He quotes the general average of the boys and girls of the six grammar classes as respectively 79.5 per cent. and 80.5 per cent., and then comments: "Not a very alarming inferiority!" As the lamented Mercutio says: "No, not as deep as a well, nor as wide as a church door, but it is enough."

This seemingly small superiority is intensified by the fact, to which I called attention, but which my critic ignores, that in *no class* was the average of the boys equal to that of the girls. Let us not dispute about the size. I am satisfied since Mr. F. acknowledges that there is a superiority, even if in his estimation it is only a "trifling" one. He fears that my figures fail to "astonish those who read"; but despite his fears I still believe that an acknowledged female superiority of even one per cent. will "astonish those who read."

My critic says: "These figures (he refers to the average ages) show that in every class *boys are compared with girls six months older;* that is, the boys, *as a group*, form the younger part of the class." I so much admire the ingenuity of this statement that I almost regret the compulsion I am under to point out its fallacy. It is not true that boys are compared with girls six months older, nor that "the boys *as a group* form the younger part of the class." This statement intimates that all the boys are younger and all the girls older, whereas the ages are mixed; some of the girls being younger than the average, and some of the boys older. An examination of my tables will show that there were ninety-one more boys than girls, and will thus explain the lower average age of the former.

Moreover, age has little to do with the rank in any one class. In the public school there is little opportunity to advance faster or slower than the regular rate. If two children, one five years, the other five and one-half, enter the primary class together, and both remain in the school, they will as a rule graduate together, and the younger is quite likely to be the smarter of the two. But allowing, for my critic's satisfaction, that there is a bona fide difference of six months in age, I still deny that it is sufficient to offset a difference of one per cent. in average.

Mr. F. says, "When young pupils keep along in the class with older ones, they are naturally the smarter." It follows from this dictum, that, as the boys are younger, they "are naturally the smarter." Now, if they are "smarter," why is it that, with a preponderance of ninety-one "smarter" pupils, they are unable to overcome the "trifling" lead of one per cent.? Surely, a difference of ninety-one "smarter" pupils should offset a difference of six months in age!

My critic tries hard to invalidate the statistics of the high school which show the remarkable superiority for the girls of almost four per cent. by seeking to insinuate that there was something in that school more favorable to the girls, although I have distinctly stated the contrary. Allow me to repeat that the pupils of both sexes are on a perfectly equal footing, take the same studies, have the same teachers, pass the same examinations, and are marked by the same system; in fact there is no distinction of sex whatever! The difference in the first class of the grammar school, between the boys and girls, is three-tenths of one per cent., while in the lower class of the high school the difference is four and one-tenth per cent. My critic considers this fact a proof of favoritism shown the girls; he is ready to accept any explanation rather than the undesired one of female superiority! He says, "There is no such jump between any two classes in the grammar school." If he will scrutinize Table No. 1 with a little more attention, he will find there other jumps which might also be called "surprising." The difference

between the boys and girls in the fifth class was six-tenths of one per cent., while the difference in the fourth class was two and eight-tenths per cent.; this is a 2.2 per cent. jump compared to my critic's "surprising jump" of 3.8 per cent. If 3.8 per cent. is a "surprising jump," what does he think of this? The average of the boys of the fifth class was 83.1 per cent.; the average of the boys of the fourth class, who were, according to Mr. F., simply one year older, was 76.5 per cent., a "surprising" jump backwards of 6.6 per cent., which, according to my critic's logic, must have been due to favoritism shown the boys of the fifth class.

Now for the reason of this "surprising jump" from the grammar to the high school. However "surprising" it may be, it is less so than the statement of one who intimates that he has been a teacher and asserts that the only difference between the pupils of the highest class of the grammar school and the lower class of the high school is one year in age. There are other and greater differences, and in them can be found the explanation of this "surprising jump." The high school course is, as it were, a selected course, and while parents, as a rule, consider it necessary to give their children the benefits of a grammar school education, many of them do not hold the same opinion in regard to the high school, but allow the children to decide for themselves whether they will go to the school or not.

Here at once we have weeded out many who attend school as a matter of compulsion or of routine, and, as a consequence, the pupils of the high school are of a higher grade. The change from the grammar to the high school marks an era in the lives of the pupils. When they enter the advanced school they look upon themselves as immeasurably lifted above their former plane. They are conscious of entering upon a new system, a different and harder course of study, and even the wildest and dullest pupil will study more than when in the lower grade. It is idle, then, to say there is simply a difference of one year. There is more! There is a difference of consciousness, of will and of interest! That the girls show a greater improvement than the boys simply proves that the faculties of their minds are more stimulated by these things I have mentioned, which is merely another way of saying that their capacity for acquiring knowledge is greater.

Mr. F., in denying my assertion that the superiority of the girls "increases in a marked degree with age," has, very carelessly, assumed that I said *progressively* increased, which I did not. The fact that the superiority of the girls in the high school is nearly three per cent. greater than in the grammar school is proof of my statement, and the added fact, which he wisely, perhaps, overlooks, that while in the grammar school the boys excel in a few branches, in the high school

the girls excel in all, is even a stronger proof. When boys enter the high school — at least the high school from which my statistics are taken — the majority of them do so with an intention of preparing for college; whereas few or none of the girls have this inducement for work; yet, despite the lack of external incentive, they sweep grandly, in every study and in every way, ahead of those very boys who are preparing to enter college and become the brains of the nation. Is there any reason to doubt that, if woman were given the same incentive and the same opportunity as is given to man, she would continue to develop the same greater capacity for acquiring knowledge? Mr. F. thinks that there is such reason; he says that the girls "at the age when they leave school have attained their maturity. They then cease to advance." As usual, he has managed to take a part for the whole, and has confused physical and mental maturity. The cool assurance with which he intimates that woman becomes a fool after her eighteenth year would be amusing if it were not irritating. "How can we reason except from what we know?" We know that, till the end of her school life, the female shows better progress than the male, and certainly reasonable anticipation should lead us to expect a continuance of this progress, if the conditions could be maintained equal.

My critic says: "But if girls do get slightly (this slightly means from one to four per cent.) higher marks, what does it signify? The teacher, in marking recitations and examinations, is not marking the pupils' ability to learn, but their ability to recite; that is, their capacity for putting what they have learned into words. Moreover, what boys *do* learn does not always indicate what they *can* learn!"

I am somewhat at a loss just how to approach this unique example of philosophy. Perhaps we can do no better than to apply the logic to some other competion, say one in jumping. A, let us suppose, jumps eight feet, while B jumps seven feet. At once the ignorant spectator begins to applaud A, whom they foolishly suppose to be superior to B; but our philosopher, who is judge of jumping, exclaims: "If A does make a 'slightly' greater jump than B, what does it signify? The measurer, in marking the results of these trials, is not marking the boys' ability to jump, but their ability to cover a certain number of feet by springing; that is, their capacity for using the muscles of their legs to propel their bodies through the air. Moreover, what they *do* jump does not indicate what they *can* jump! Therefore I declare B the winner!" All hail, the victor.

Having analyzed, at a length I regret, but which was rendered necessary by his peculiar logic, my critic's objection to the weak (?) points of my paper, I shall very briefly call attention to other points which he has perhaps considered too strong to be safely meddled with.

In the grammar school 37.6 per cent. of the boys and 43.8 per cent. of the girls, and in the high school 26.8 per cent. of the boys and 37.2 per cent. of the girls, were honor pupils; that is, received a mark above, 85 per cent.

In the grammar school, of forty-eight first places, twenty-five were held by girls and nineteen by boys, although the number of the latter exceeded that of the former by ninety-one. In the high school, of twenty-four first places, eleven were held by girls, and nine by boys, the number of the latter in excess of the former being fifteen. The lowest ranks in the grammar school were equally divided, but in the high school, of twenty-four lowest places, only five were held by girls and fifteen by boys. The averages of the smartest girls are higher than those of the smartest boys, and the averages of the dullest boys are lower than those of the dullest girls. In the grammar school the boys excel in but three studies; in the high school the girls excel in all. Of seventy-two classes, there was but one, and that an exceptional one, in which the average of the boys exceeded that of the girls.

I would have been pleased if Mr. Fernald had not overlooked these very important points of superiority. He falls into the grave error of supposing, because I asked *why* woman should not be equal to man in the struggle of life, that I believe she is. I have not expressed any opinion on the subject, and, therefore, am not interested in his furious conflict with the man of straw he has himself constructed. I will, however, dwell briefly upon two points: one point which will illustrate my critic's peculiar mental condition and show the value to be placed upon his glittering generalities.

He says: "The science of mind has not yet advanced far enough to give us *exact* methods of measuring faculties, still it has shown *beyond the possibility of doubt*, that while certain faculties are stronger in man than in woman," etc. I am not interested in nor denying any statement here presented, but draw attention to the amazing contradiction involved in this single sentence, because it is, to a certain extent, characteristic of the whole of the paper I am called upon to answer. If we have no "exact method" of measuring, then certainly it is impossible that anything can be "shown beyond the possibility of a doubt." Nor does it require even a "smattering knowledge" to know that the point in question, — is the persistent repression woman has received for centuries calculated to benefit or injure her mentally, — does not come under the head of evolution, as the term is generally used at all. It is notorious that for centuries man has had every advantage and woman few or none. All students of heredity (heredity, not evolution), know that the female child inherits from both parents; but it is self-evident that she takes more from the mother, else where do we get the "female type of brain"?

The disadvantages under which the mother labors react to a greater extent upon the female child. It does not take more than a "smattering" of common sense to understand that the constant repression of woman reacts upon her sex, not only by heredity, but by association, by emotion, and by knowledge, for what little knowledge she did acquire duly impressed her abject inferiority upon her. Fortunately for our future children, both male and female, this sense of inferiority is fast dying away, and woman is beginning to take her rightful place as the equal and complement of man!

R. Cyrene Mac Donald, M. D.

FOREIGN NOTES.

ENGLAND.

Technical Education Act. — The failure of Sir Henry Roscoe's Technical Education Bill was followed quickly by the introduction and passage of a government bill, termed the "Act to facilitate the provision of technical instruction." The Act gives power "to a local authority" to supply, or aid the supply of technical or manual instruction out of the local rate, subject to certain specified restrictions. The expression "technical instruction" is interpreted to mean instruction in the principles of science and art applicable to industries, and in the application of special branches of science and art to specific industries or employments. It does not include the practice of any trade, or industry, or employment. "Manual instruction" is interpreted to mean instruction in the use of tools, processes of agriculture, and modeling in clay, wood, or other material.

It is charged, that the Bill was rushed through without proper discussion and examination; that it is crude and threatens great complications from the fact that it permits money to be taken from the rates and applied to schools not under public management. This is a proceeding which Liberals and non-conformists have been strenuously opposing for forty years. Warning has been sounded in the educational journals and many leading papers, and it seems probable that the opposition to the Act will be sufficiently strong and determined to cause its annulment or essential modification in the next session. The Catholics are naturally jubilant over the measure.

COOKERY UNDER THE LONDON SCHOOL BOARD.

From a report on the provision made by the London School Board for instruction in cooking, it appears that "the Board have established sixty-five centres and four class-rooms in various parts of the metropoli-

tan area where children attend to receive lessons in" this important industry.

"In most cases, the centres have been built upon a portion of the play-ground, and are detached from the main building. They consist of (1) a stepped class-room about twenty-one feet by eighteen feet, containing a demonstration counter, a gas stove, a kitchener, an open range stove, a dresser, and such appliances as are necessary for the teaching of plain cookery; (2) a scullery; and (3) a cloak-room. The more recently built centres also contain a lavatory.

"Schools in outlying districts, *i. e.*, those which are beyond the range of any centre, have in some cases had one of the class-rooms fitted up with simple cookery apparatus, in order that the children attending such schools may not be deprived" of this training.

"All girls over eleven years of age, without regard to Standard, and all girls in Standard four and upwards, who are ten years of age, are required to attend in each year, a course of twenty lessons in practical cookery at one of the centres. All girls over twelve years of age not having reached Standard four, are also required to attend a course of twenty lessons in practical cookery, unless satisfactory reasons for their non-attendance be furnished by the managers.

No extra fee is charged for instruction in cookery to girls attending the Board schools. Children from non-Board schools are permitted to attend the centres for instruction, when room can be found for them, upon payment of a fee of four shillings each for the course of twenty-two lessons, one lesson being taken each week. During the year 1882, two hundred twenty-three non-Board scholars have received instruction in cookery at the Board's centres.

The materials required for the practice lessons at the centres are obtained from local tradesmen by the instructors, and the cooked food is sold, whenever possible, to the children or the teachers in the schools.

The Education Department allows a grant at the rate of four shillings a head on account of those children in the fourth or any higher Standard who have received during the school year, not less than forty hours' instruction in practical cookery (Art. 109 (*h*) New Code of the Education Department).

For the week ended the 22d of March, 1889, there were 11,603 children on the rolls, and 9,931 in actual attendance, but as a course is only of six months' duration, these numbers represent about one-half the number of children who receive instruction during the year.

FRANCE.

Educational Monographs for the Paris Exposition. — The French Faculties. — The series of monographs prepared for the

educational section of the Paris Exposition will form an important addition to the literature of special subjects. Naturally the development of education under the French Republic, and the steps of progress in the several grades of instruction, are the chief subjects treated.

The *Revue Internationale de L'ensignement* publishes a remarkable chapter from one of these monographs by Prof. Henri Marion, on the movement of pedagogic ideas in higher instruction.

The peculiar status of the French Faculties, and the several measures by which they have advanced towards independence and distinct organization, are here reviewed. It would be impossible to note in this place all the various endeavors and agencies by which the views of Monsieur Guizot, announced in 1834, have been realized.

The official sanction is affirmed in the decrees of July 25, and December 28, 1885. The former revived a long-neglected law which gave civil personality to the Faculties, by permitting them to hold property, to receive gifts, and to manage their own estates. The decree also permitted subventions to be given to the Faculties by cities, departments, private corporations and individuals. Thus, new sources of revenue are provided and conditions assured, which will break up the uniformity of the Faculties, and give them varied and individual character.

Under the provisions of the decree, Paris has already added to its Faculty of Letters, a course of the "History of the French Revolution," and in its Faculty of Science, a course of the "Evolution of Organized Beings." The decree of December 28 is characterized by Professor Marion, as the most decisive of all the acts in favor of superior instruction. By constituting in each Faculty a council of professors, and then a general assembly, and conferring upon them the essential attributes of autonomy, a real organization has been accomplished. At the same time by allowing the Faculties to control their own budgets, permitting them to choose their own deans, to regulate their own programmes, fill vacant chairs, and offer their advice in respect to the creation and suppression of chairs, the decree gives vitality to their organization. For the completion of the work, there is wanting only local concentration.

In 1883, Mons. Jules Ferry submitted to the Faculties and Academic Councils a series of questions touching the creation of universities in France, analagous to those of other European countries. The results of this inquiry showed that the importance of bringing together the scattered Faculties in each academic division was fully recognized, even where the change was not desired. It was, however, apparent that the time had not come for proposing to the Legislature the creation of universities. The name itself gives rise to some embarrassment in France, since it has long been applied to the state system of education.

GERMANY.

THE PRUSSIAN BUDGET. — The educational budget of Prussia amounts to about 211,000,000 marks, equivalent to $50,218,000. It absorbs three-tenths of the entire budget, and upon the estimated population (28,000,000), gives $1.78 per capita. The amount it distributed as follows: To the universities, 7.5 per cent.; to the secondary schools (gymnasia, real schulen, etc.), 13.83 per cent.; to elementary education, 74.43 per cent., and to professional and technical schools, 4.23. Of the entire sum the state contributes 31.03 per cent., the communes, 46.19, and the remainder is derived from endowments and private donations.

UNIVERSITY NOTES.

The University of Jena announced autumn courses for teachers in the various sciences. The entire number of students in the German universities for the summer semester, was 29,491, distributed among the faculties as follows: Theology, 6,000; law, 6,835; medicine, 8,883; philosophy and natural sciences, 7,773.

The Prussian Minister of Education is turning his attention towards the study of the history of medicine. Formerly there was a chair for this subject at every German university; now there is but one, namely, at Berlin, occupied by Professor Hirsch, the Nestor of the Historians of Medicine. It has been recently ordered that every Professor of Hygiene should include in his work, lectures on the history of medicine.

A. T. S.

BIBLIOGRAPHY OF CURRENT PERIODICAL LITERATURE UPON EDUCATION.

The following bibliography of current periodical literature includes articles upon education and other subjects calculated to interest teachers. Only articles from periodicals not nominally educational are mentioned. Articles of special importance to teachers will, as a rule, be mentioned in notes.

Amiel and Pessimism. Brother Azarias. *Catholic World*, Oct.

A scholarly review of the *Journal Intime* of Amiel.

Anthropology at Washington. Prof. J. Howard Gore. *Popular Science Monthly*, October.

Association générale des étudiants, A l'. — Le banquet de Mendon: discours de M. Ernest Lavisse. *Revue Bleue*, August 17.

Association of Ideas, Experiments upon. *Science*, September 27.

A *resumé* of Dr, Cattell's experiments reported in "Mind," No. 54.

Australian Ballot System. Edward Wakefield. *Forum*, October.

Base Ball — For the Spectator. Walter Camp. *Century*, Oct.

Beethoven, La jeunesse de. *Revue des Deux Mondes*, September 15.

Bellamy's (Edward) Vision. William T. Harris. *Forum*, October.

An important criticism of "Looking Backward."

British Association, The. *Nature*, September 19.

Opening addresses in the sections of Geology, Geography, Economic Science, and Mechanical Science. The attention of teachers may be directed especially to Col. Winton's address upon Geography, and to Professor Edgeworth's upon Political Economy.

Cellini, Benvenuto, The Life of. Edward J. Lowell. *Scribner's*, October.

Clough, Arthur Hugh. William Higgs. *Yale Review*, October.

Coleridge as a Poet. Professor Dowden. *Fortnightly Review*, Sept.

College, The Christian, a Safeguard of the Republic. Prof. L. T. Townsend. *Our Day*, September.

Coöperation, The Progress of. I. In England. George Jacob Holyoake. II. In France. A. Millerand. *New Review*, September.

Criticism as a Trade. Professor Knight. *Nineteenth Century*, Sept.

Dante's Divina Commedia, The Spiritual Sense of. W. T. Harris. *Journal of Speculative Philosophy*, Oct. 1887.

The number containing this important paper has just been published.

Democracy in the Household. E. Lynn Linton. *Forum*, October.

A suggestive article on the servant-girl question. "For good or evil, the democratic wave is flowing over all the social ground, inside the home as well as outside in public life."

Democracy, The Aberrations of. Washington Gladden. *Andover Review*, October.

Democratic Ideal in Education, The. With an illustration from the Workingman's School and Free Kindergarten, New York. Felix Adler. *Century*, October.

Diderot. *Westminister Review*, Sept.

Diseases caught from Butcher's meat. Dr. Behrend. *Nineteenth Century*, September.

Drawing-room Homily. A. F. D. Huntington. *Forum*, October.

Economy. I sofismi economici vecchi tornati in vigore nelle generazioni nuove. L. G. De Cambray-Digny. *Nuova Antologia*, Sept. 1 and 16.

Egypt, Education in Ancient. F. C. H. Wendel. *Popular Science Monthly*, October.

Egypt under the Kedive. Frank G. Carpenter. *Cosmopolitan*, Oct.

Eight-Hour Law, An. H. H. Champion. *Nineteenth Century*, Sept.

Electricity in War. I. In Naval Warfare. W. S. Hughes. II. In Land Warfare. John Millis. *Scribner's*, October.

Ericsson and his "Monitor." Charles W. MacCord. *North American Review*, October.

Espagne, Le mouvement littéraire en. E. Rios. *Bibliothèque Universelle*, August.

Esthétique contemporaine, L': La mimique dans le système des beaux-arts. Ch. Bénard. *Revue Philosophique*, September.

Europe, Mutterings of War in. Emile de Laveleye. *Forum*, Oct.

Evolution as Taught at a Theological Seminary. Rollo Ogden. *Popular Science Monthly*. October.

Fiction in the Pulpit. Agnes Replier. *Atlantic Monthly*, October.

Fork, History of the. J. Von Folke. *Popular Science Monthly*, October.

Translated from Ueber Land und Meer.

Formale Bildung. Paul Cauer. *Preussische Jahrbücher*, September.

A valuable paper with reference to the curriculum of the German gymnasium.

Freidenker, Ein antiker. Ludwig Büchner. *Deutsche Revue*, October.

Devoted to the poet Lucretius.

French Art, A Century of. Claude Phillips. *New Review*, September.

French Association for the Advancement of Science, The. *Nature*, August 22.

Funde und Ausgrabungen der letzten Jahrzehnte. I. J. Mähly. *Deutsche Revue*, October.

Gladstone, The Candour of. T. P. O'Connor. *Contemporary Review*, Sept.

Goethe, La jeunesse de. Goethe et Herder à Strasbourg. Edouard Rod. *Bibliothèque Universelle*, August.

Government and its Creditors, The. Henry Loomis Nelson. *Atlantic*, Oct.

Harris, William T., and the Bureau of Education. William A. Mowry. *New England Magazine*, October.

Harvard of To-day. Josiah Parsons Cooke. *Science*, September 13.

Address at the last Harvard Alumni dinner.

Herschels, Maria Mitchell's Reminiscences of the. Maria Mitchell. *Century*, October.

Holmes, Dr., at Fourscore. George Willis Cooke. *New England Magazine*, October.

Iliad, Closing Scenes of the. William Cranston Lawton. *Atlantic*, October.

Irish Home Rule, Parallels to. E. A. Freeman. *Fortnightly Review*, Sept.

Japan, The Two Capitals of. Frank G. Carpenter. *Cosmopolitan*, Sept.

Labor Organizations, The Tyranny of. Austin Corbin. *North American Review*, October.

Ladies and Learning. L. D. Morgan. *Atlantic*, October.

Land, How to Nationalize the. F. L. Soper. *Westminster Review*, Sept.

Lincoln, Abraham: A History. Blair's Mexican Project — The Hampton Roads Conference — XIIIth Amendment. John G. Nicolay and John Hay. *Century*, October.

Linnaeus, Carolus, Sketch of. *Popular Science Monthly*, October.

Literature, Making a Name in. Edmund Gosse. *Forum*, October.

An interesting discussion of the conditions of success and failure in literature.

Magazine Editors, The Trials of. Junius Henri Browne. *Lippincott's*, October.

Mansfield College, The Opening of, and the Puritan Return to Oxford. *Andover Review*, October.

An editorial.

Manual Training as a Factor in Modern Education. With illustrations from the Philadelphia Manual-Training School. Francis Newton Thorpe. *Century*, October.

Mariage, Le, et le divorce aux Etats-Unis. C. de Varigny. *Revue des Deux Mondes*, September 1.

Mind, Growth and Decay of. R. A. Proctor. *Knowledge*, September.

Molière and Shakspere. C. Coquelin. *Century*, October.

Monmouth and Newport Campaigns, The. John Fiske. *Atlantic*, October.

Montchrétien, Le fondation de l' économie politique. Th. Tunck-Brentano. *Revue Bleue*, Sept. 14.

Moralité, Les transformations futures de l' idée morale — III. Fondemens psychologiques et métaphysiques de la moralité. Alfred Fouillée. *Revue des Deux Mondes*, Sept. 15.

Motion, Our Sensations of. Prof. A. Crum Brown. *Nature*, Sept. 5.

Motley, John Lathrop, The Correspondence of. S. B. Wister. *Lippincott's*, October.

Nashville, The Educational Institutions of. David G. Ray. *New England Magazine*, October.

National Educational Association, The. Albert P. Marble. *New England Magazine*, October.

Negro, Prejudice against the. John Snyder. *Forum*, October.

Shows most pointedly the absurdity of the color-caste line.

"Nether World," The. Archdeacon Farrar. *Contemporary Review*, September.

Apropos of the above novel, whose characters he finds "all typical," Archdeacon Farrar writes of the evils among the poor and suggests remedies.

New England Conservatory of Music, The. Edward Dwight Walker. *Cosmopolitan*, September.

New England's Gift to the Republic. Rev. A. D. Mayo. *New England Magazine*, October.

Nijnii-Novgorod, The Fair of. Theodore Child. *Harper's*, October.

Notoriety, The Love of. Frances Power Cobbe. *Forum*, October.

Occultism, The Origin of Modern. F. Legge. *National Review*, Sept.

Ohr. Ueber Bau und Verrichtungen des menschlichen Ohres. K. Bürkner. *Deutsche Revue*, October.

Perikles, Die Strategie des, erläutert durch die Strategie Friedrichs des Grossen. I. Hans Delbrück. *Preussische Jahrbücher*, September.

Philosophische Bibliothek, J. V. Kirchmann's. Adolf Lasson. *Preussische Jahrbücher*, September.

Phrenology, The Old and New. Prof. M. Allen Starr. *Popular Science Monthly*, October.

A valuable psycholgical paper.

Post, Progress and the. Don M. Dickinson. *North American Review*, October.

Postal Reform, Needed. Thomas L. James. *Forum*, October.

Prismatics. Sophia Kirk. *Atlantic*, October.

Protection and the Farmer. Sen. S. M. Cullom. *Forum*, October.

Psychologie. La science de l' hérédité. Francis Galton. *Revue Scientifique*, August 17.

Psychologie. — La vision des monuments élevés. A. Rémy. *Revue Scientifique*, August 24.

Quackery, The Open Door of. Dr. William G. Eggleston et al. *North America Review*, October.

On medical education and legislation regulating it.

Reading. What English People Read. W. M. Gattie. *Fortnightly Review*, September.

Reason, The Age of. H. G. Keene. *National Review*, September.

Recounts some of the literary aspects of the French Revolution.

Religion, In Search of a. W. S. Lilly. *Nineteenth Century*, Sept.

Religion of Rome during the Third Century. *Westminster Review*, Sept.

Rentengüter, Ueber. Sombart-Ermsleben. *Preussische Jahrbücher*, Sept.

Rights of Man, A Tory Plea for the. W. Earl Hodgson. *National Review*, September.

Roads, The Common. N. S. Shaler. *Scribner's*, October.

Russian Characteristics. Part I. — Lying. E. B. Lanin. *Fortnightly Review*, September.

Schopenhauer and Goethe (First Paper). Lewis J. Huff. *Unitarian Review*, October.

Sense, An Unknown Origan of. Christine Ladd Franklin. *Science*, September 13.

The writer maintains that Brener's experiments prove that by sensations from the semicircular canals we determine the direction and amount of rotary motions of the body.

Sheridan's First Fight. C. S. Greene. *Overland Monthly*, October.

Social Problems. Edward Everett Hale. *Cosmopolitan*, Sept. and Oct.

Socialism. Christian Socialism in America. Nicholas P. Gilman. *Unitarian Review*, October.

Socialism, Practicable. A. R. Newman. *Westminster Review*, Sept.

Based upon Rev. and Mrs. Samuel Barnett's book of the above title.

Song, Science in. Lennot Browne. *Contemporary Review*, September.

Spencer's "Faerie Queene," One Aspect of. Henry S. Pancoast. *Andover Review*, October.

Steam, The Supplanting of. Alvan D. Brock. *Overland Monthly*, Oct.

Strikes, The Warning of the English. Henry George. *North American Review*, October.

A suggestive paper.

Surgery, Recent Progress in. W. W. Keen. *Harper's*, October.

Tarry at Home Travel. Edward E. Hale. *New England Magazine*, Oct.

Technical Instruction Act, The. *Nature*, September 12.

Trades' Union Congress and Social Legislation. George Howell. *Contemporary Review*, September.

Training of the Teacher, The. With illustrations from the New York College for the Training of Teachers. Nicholas Murray Butler. *Century*, October.

Tropical Education. Grant Allen. *Longman's*, September.

"If any one were to ask me (which is highly unlikely)," says the author, 'In what university would an intelligent young man do best to study?' I think I should be very much inclined indeed to answer off-hand, 'In the Tropics.'"

Visage de l' homme, Le, et la physiognomie. Emile Yung. *Bibliothèque-Universelle*, August.

Volupük — The Universal Language that no one Speaks. *Cosmopolitan*, October.

War Reminiscences, A Non-Combatant's. J. R. Kendrick. *Atlantic*, October.

An interesting paper by one who was teacher and clergyman at the South during the War.

Was mir nicht Wissen. Paul Mantegazza. *Deutsche Revue*, October.

Women in Public Life. D. F. Hannigan and Elizabeth Martyn. *Westminster Review*, September.

Women, The Position of, among the Early Christians. Principal Donaldson. *Contemporary Review*, Sept.

Woolsey, Theodore Dwight. Joseph Henry Thayer. *Atlantic*, Oct.

Wordsworth and the Quantock Hills. William Greswell. *National Review*, September.

Wordsworth's Great Failure. Professor Minto. *Nineteenth Century*, September.

Workers, A Few Words to Fresh Workers. Octavia Hill. *Nineteenth Century*, September.

Paper read before the University Extension students at Oxford, *August*, 1889.

Working Man, A real. *Macmillan's*, September.

Workmen's Insurance in Germany. Prof. F. W. Taussig. *Forum*, Oct.

AMONG THE BOOKS.

BENJAMIN FRANKLIN. By John T. Morse, Jr. American Statesmen Series. Boston and New York: Houghton, Mifflin & Co. Pp. 428. Cloth. Price, $1.25.

Mr. Morse himself says in effect, It is far from easy to compress the life of Franklin into four hundred pages. Yet in spite of the difficulty of the undertaking, the work has been done, and well done.

The author has given the various sides of the character of his subject very fair treatment, and shows the greatness and strength of the man with clearness and accuracy. As so large a portion of Franklin's mature years was given to statesmanship, it is what would be expected, to find one-half the chapters upon his services to his country, but in each of these chapters is shown, beside and in connection with his purely political duties, the social side of the man, together with the breadth of his intellect, acuteness, diplomatic manner, and great knowledge of the people of England and France, as well as of America. The book throws new light upon the character and services of Franklin. This is one of the books which every boy should read.

ELEMENTARY PRACTICAL PHYSICS. A Guide for the Physical Laboratory. By H. N. Chute, M. S., Teacher of Physics in the Ann Arbor High School. Boston, New York and Chicago: D. C. Heath & Co. 1889. Pp. 386.

For many years the science teachers of the country have been waiting for this book. The most advanced of them have long realized the great disadvantages in using previous textbooks. While each new textbook that appears is in some respects an improvement over any of its predecessors, not one has been written that really fills the bill. Among other faults, these stand up perhaps the most prominently. Too small a list of experiments, too many explanations as to what result the student ought to find, and as a rule too costly apparatus required to perform the experiments.

As the method of individual laboratory work in physics is being adopted everywhere, and as most teachers find that their very large physics classes prevent their devising so many experiments, the need of a purely experimental book has appeared on all sides. Professor Chute has happily decided to omit all laws and definitions, and simply to furnish teachers with a long list of carefully prepared experiments that will require the least expensive apparatus, and to adapt it for use with any accurate textbook. There is not an experiment in the book that is not fully described and fitted for the comprehension of any teacher or pupil. With both very simple and more complex experiments on every subject, any teacher has a nearly limitless choice. Some of the experiments will surely fit his apparatus. The work takes up nearly the whole ground of the science, the seven chapters being: "The Properties of Matter," "Experimentally Determined," "Mechanics of Solids," "Mechanics of Fluids," "Heat," "Magnetism and Electricity," "Sound," and "Light." The author has also prepared lists of experiments that would be suitable for courses of greater or less length.

The best feature of the book, however, seems to be found in the way in which the pupil is shown how to draw his own inferences. He is nowhere told what he is to expect, but his attention is called to the direction in which he is

to look for a result. He is not allowed to waste his time on phenomena that have no necessary relation to the subject at hand, and he is not allowed to draw too general results from the data. The system of tabulation of results, as prepared by Mr. Chute, is one that will be of infinite value to the pupil in his after life.

Together with many practical suggestions to the teacher both in the prefix and appendix, as to the method of conducting the work as a whole, and also as to special laboratory operations, there will be found a quite comprehensive set of tables for reference. The list of well-known science teachers to whom Professor Chute refers as having "carefully read the work in proof, and aided very greatly in giving it its present degree of accuracy and completeness of treatment," furnishes no small recommendation of the worth of the book. With any well prepared textbook and Professor Chute's Practical Physics, a teacher ought to be well fitted to begin a year's work in laboratory physics.

INSTITUTES OF ECONOMICS. A Textbook for College Classes. By E. Benjamin Andrews, D. D., LL. D., President of Brown University, late Professor of Economics and Finance in Cornell University. Boston: Silver, Burdett & Co. Pp. 228. Cloth. Introductory price, $1.30.

This manual of political economy for the classroom is on a plan thoroughly its own. Its chief peculiarities in point of method are: 1. The utmost brevity which can be made to consist with clearness; indispensable amplifications and illustrations beyond this being referred to notes. 2. Thorough and conspicuous analysis general and special, greatly aiding pupils both to master and retain the thought. 3. Encouragement to side reading; each paragraph being introduced by references to the best accessible authority upon its theme, in various languages. On all subjects of special importance the ablest convenient discussions are listed in notes. These references furnish practically a classified Cyclopædia of Economics, which even specialists in the science will prize. We know of nothing like it elsewhere in English. Its point of view is historical, though it maintains the existence of general economic laws, absolutely and universally valid. While the materials of the volume and the handling of them are primarily adapted to undergraduates in Universities and Colleges, its copious references to the best authorities, English and foreign, will give it great value for advanced students, while, on the other hand, its clearness and simplicity qualify it, through perhaps the omission of a few peculiarly severe sections, for successful use in high schools and academies.

EXERCISES IN LATIN PROSE COMPOSITION FOR SCHOOLS. By M. Grant Daniell, A. M., Principal of Chauncy Hall School, Boston. Part I. Based upon Cæsar's Gallic War. Books I. — IV. Boston and New York: Leach, Shewell & Sanborn. Pp. 102. Cloth. Price, 60 cents.

In preparing this book Professor Daniell has proceeded upon the belief that Latin Composition can best be taught in connection with the reading of Latin authors. Having used this method in his class work, he finds much saving of time and labor. All teachers of Latin will find this new book to embody much that is fresh, and the system must inevitably commend itself to all.

XENOPHON'S ANABASIS. Book I. — IV. With an Introduction, Notes and Vocabulary. By Francis W. Kelsey, Ph. D., and Andrew C. Zenos, M. A. Boston: Allyn & Bacon. Pp. 160. Half leather.

In preparing this edition of Anabasis the authors have made use of Cobet's text with occasional variations well sustained by manuscript authority.

In the introduction is given, as preparatory to an intelligent study of the Anabasis, an outline of the Persian Empire, an account of the Expedition of Cyrus, a brief view of the Art of War as practiced by the Greeks at this time, and a succinct statement of the life and writings of Xenophon.

In the notes the references to standard Greek Grammars are quite numerous, particularly in those referring to the first two books.

The "Helps to the Study of Anabasis," "Idioms and Phrases," and "Vocabulary" will be found valuable and very full.

THE FIRST THREE BOOKS OF HOMER'S ILIAD, with Introduction, Commentary, and Vocabulary for the use of Schools. By Thomas D. Seymour, Hillhouse Professor of Greek in Yale College. Boston: Ginn & Co. Cloth. Price, $1.35.

In this edition of the first three books of the Iliad, Professor Seymour has used the text of *Homeri Ilias edidit Guilielmus Driedorf: edito quinta correctior quam curavit C. Hentze.*

In the introduction the author has discussed, 1st, Epic Poetry; 2d, Homeric Life; 3d, The Story of the Iliad; 4th, Homeric Style; 5th, Homeric Syntax; 6th, Homeric Dialect; 7th, Homeric Verse. The last three particularly are quite fully treated. The text of the Iliad is very plainly printed, and the whole book is well gotten up. The notes are full and judicious, and the vocabulary complete.

LES TROIS MOUSQUETAIRES. Par Alexandre Dumas. Edited and annotated for use in Colleges and Schools, by F. C. Sumichrast, Assistant Professor of French in Harvard University. Boston: Ginn & Co. Pp. 289. Cloth. Price, 80 cents.

A recent article by Andrew Lang, says of this distinguished French author, "That his works (his best works) should be even more widely circulated than they are; that the young should read them, and learn frankness, kindness and generosity — should esteem the tender heart, and the gay, invincible wit; . . . . that is what we desire."

In this edition of Les Trois Mousquetaires, Professor Sumichrast has given a condensation of the work, leaving the main features of the story, the brilliant descriptions, characteristic dialogues, etc., while the objectionable passages have been cut out, leaving the work one particularly adapted for use in high schools, academies, and colleges.

SHAKESPEARE'S TRAGEDY OF MACBETH. Edited with notes, by Homer B. Sprague, A. M., Ph. D., President of the University of North Dakota. Chicago: S. R. Winchell & Co. Pp. 237. Cloth, price 55 cents; paper, price 40 cents.

In editing this edition of Macbeth, President Sprague has in some points followed a new plan. His notes are arranged with a view of stimulating rather than making thought unnecessary. He has embodied etymological and critical research. He has given the opinions of the best critics on disputed points, and there are other points of excellence which the student and the general reader will appreciate.

THE FRANKLIN SQUARE SONG COLLECTION. No. 6. Devoted to School and Home. New York: Harper and Brothers. Pp. 184. Paper, price 50 cents; Boards, price 60 cents; Cloth, price $1.00.

We are happy to have this opportunity of giving to our readers a notice of a splendid new book of songs for the schoolroom. It is not often that a new

collection of songs appears which can unreservedly be recommended as worthy of introduction into any school. The Harpers' Franklin Square Collections have been long, well, and favorably known, but we believe there is yet a large field of usefulness which they have not entered.

The plan of printing among the songs and hymns brief histories of the origin of some of the oldest and the most popular hymns, adds very much to the value of these books.

THE WAR OF INDEPENDENCE. By John Fiske. The Riverside Library for Young People. Vol. I. Boston: Houghton, Mifflin & Co. Pp. 196. Cloth. Price, 75 cents.

Messrs. Houghton, Mifflin & Co. have done an excellent thing for the youth of America in starting the publication of a series to comprise books which will last. The great subjects of History, Biography, Mechanics, Travel, Natural History, Adventure and kindred subjects will form the principal part of the library. Fiction will not be excluded, but it will not be the main feature of the library.

This volume, the first of the series, is a most excellent beginning, and, if by it the character of the Library as a whole can be judged, it is to be a most excellent series.

Mr. Fiske is well known as a careful and reliable writer of history, and he has added to this reputation by the admirable manner in which he has condensed and placed before the young readers of this book the facts, causes and results of the Revolution.

GEORGE WASHINGTON; an Historical Biography. By Horace E. Scudder. The Riverside Library for Young People. Vol. II. Boston: Houghton, Mifflin & Co. Pp. 248. Cloth. Price, 75 cents.

Having read Volume I. of this Library, there is little doubt that the young reader will not be satisfied till he has secured and read the second, which contains the life of Washington, so admirably fitted for the next place in this excellent series. The type, paper, illustrations and general make-up of the books are of good quality, and any youth will prize this Library.

JONATHAN EDWARDS. By Alexander V. G. Allen, D. D., Professor in the Episcopal Theological School, in Cambridge, Mass. "American Religious Leaders" series. Boston: Houghton, Mifflin & Co. Pp. 401. Cloth. Price, $1.25.

The great historian, Bancroft, has said. "He that would know the workings of the New England mind in the middle of the last century . . . . must give his days and nights to the study of Jonathan Edwards."

In this Life of Edwards, Professor Allen has endeavored to show the man as a theologian, a work not heretofore attempted, and in these pages we get a light which will abundantly help in perfecting our knowledge of the man of the times in which he lived, and of his great influence upon modern New England. The book is written with remarkable clearness, and it is plainly evident that the author has taken great pains to be perfectly fair, honest, and honorable in portraying the special, intellectual and moral power and weakness of the great polemic writer of the last century.

This series is in the same style as the American Statesmen, American Men of Letters, and American Commonwealth Series, and will, we believe, have as large a list of readers as have these three series.

EDWARDS'S HISTORICAL CARDS. Boston: Educational Publishing Company. Price per set, $1.00.

These cards cover a wide range of topics relating to American History. The cards are 3¼ x 5¼ inches, with questions upon the topical method, with references to book and page where the proper information can be obtained.

Teachers will find them useful, especially in breaking up the practice of committing to memory the text without lodging in the mind any corresponding idea of the facts.

SELECTIONS FROM WORDSWORTH. With Notes by A. J. George, M. A., editor of Wordsworth's Prelude. Boston: D. C. Heath & Co. Pp. 434. Cloth.

It is evident that Mr. George has made a study of Wordsworth and his writings, for the selections are of a character which give an excellent study of the man. The notes are very full and arranged to show and explain not only *what* the author says, but to give an insight into the personality of Wordsworth, and bring out the man through his writings. The style of Wordsworth is shown to be his own, and "to be judged by canons applicable to him alone."

SYLLABUS. English Literature and History. By A. J. George, A. M. Boston: D. C. Heath & Co. Pp. 24. Paper.

This little pamphlet is intended to further the spirit of literary and historical study. It has been used by the author in his work in literature in the Newton, Mass., High School, and will undoubtedly be found of much value to many other teachers of literature.

A GENERAL HISTORY FOR COLLEGES AND HIGH SCHOOLS. By P. V. N. Myers, A. M. Boston: Ginn & Co. Pp. 759. Half leather. Price, $1.50.

This new general history is based upon the *Ancient, and Mediæval, and Modern Histories* by the same author. In treating of the period of the Reformation and the causes therefor, which have of late been the subject of so much controversy, Professor Myers seems in this book to have given no cause for complaint to any one.

The twenty colored maps are a great addition to the value of the book which is of itself an excellent one, full, accurate and reliable. In general make-up, it is all that could be desired.

LAW OF CHILDHOOD, AND OTHER PAPERS. By W. N. Hailmann, Superintendent of Schools, La Porte, Ind. Chicago: Alice B. Stockton & Co., 161 La Salle Street. Pp. 80. Leatherette.

The four papers forming the contents of this book are worthy to be read by every superintendent and teacher in the schools of America. They are both philosophical and practical. If our superintendents and teachers were more familiar with subjects such as those treated by Superintendent Hailmann in these papers, we should have better teaching and more intelligent supervision.

THE ESSENTIALS OF METHOD. A Discussion of the Essential Form of Right Methods in Teaching. By Charles De Garmo, Ph. D. (Halle), Professor of Modern Languages, Illinois State Normal University, Normal, Ill. Boston: D. C. Heath & Co. Cloth. Pp. 119.

In this book Professor De Garmo has endeavored to show the proper methods of teaching. He has divided the theories of teaching into two classes. One class he compares to gardening, while the other class is, in his estimation, more nearly like architectural designing. He has bent his efforts toward the giving of the best manner of building up the mind of the pupil. It is a capital work.

SCHOOL HYGIENE: OR THE LAWS OF HEALTH IN RELATION TO SCHOOL LIFE. By Arthur Newsholme, M. D., Medical Examiner of Pupil Teachers to the School Board of London, etc. Boston: D. C. Heath & Co. Pp. 143. Cloth.

Doctor Newsholme has here given very much valuable information, suggestion, and instruction in regard to this subject, of which many teachers and school officers know so little. The book should be carefully studied by every superintendent and committeeman, as well as by teachers. Much of it is from the English standpoint, but the author has evidently acquainted himself with the facts of America, as well as could be expected of an Englishman.

THE CHILDHOOD OF JESUS, AND OTHER SERMONS. By Adolphe Monod. Translated by Rev. J. H. Myers. Boston and Chicago Congregational Sunday-School and Publishing Society: Pp. 196. Paper, 40 cents; cloth, 75 cents.

Adolphe Monod, a Swiss Protestant minister, who died in 1856, was one of the most eminent preachers of his day. It was a happy thought of the translator to give us these sermons from the great preacher. Any sermons would have been welcome, but these are peculiarly so, since they are about children and to children, and take up the problem of their Christian training and development in such a way as to be a help both to them and to parents. Parents should read them to their children, and by reading them learn how to influence their children for good.

THE CHILD AND CHILD-NATURE. By The Baroness Marenholtty-Buelow, author of "Hand-work and Head-work." First American from the second London edition, with addition of an Index. Syracuse: C. W. Bardeen. Cloth. Price, $1.50.

It is undoubtedly true that the knowledge and understanding of Froebel and of his principles has not grown in proportion to the increase of kindergartens. It is necessary, in order to conduct any undertaking properly, to have, at the very least, a good knowledge of the principles upon which the work rests. In this book the author has endeavored to unfold and place before the reader the principles and practices by which a child can best be taught those things which during his early years he is fitted to grasp.

Primary teachers and grammar teachers, as well as kindergartners, will find very much of value to them in this book.

OUR WORLD READER. No. 1. First Lessons in Geography. By Mary L. Hall. Boston: Ginn & Co. Pp. 241. Cloth. Price, 60 cents.

In the twenty-nine lessons the child will form a very good general idea of the world, its divisions into land and water, the various forms of the land such as mountains, valleys, plains, hills, deserts, volcanoes, rivers, bays, capes, promontories, etc. He will have clearly defined the knowledge which in beginning geography the teacher finds hard to impart with the accuracy and clearness which is essential.

These lessons may be used with good results in the reading class for a term before the class begin the direct study of geography.

SERMONS ON THE INTERNATIONAL SUNDAY-SCHOOL LESSONS FOR 1890. By the Monday Club. Fifteenth Series. Congregational Sunday-School and Publishing Society. Price, $1.25.

This Annual has become well known, and ought to be read of all men — particularly those who have to do with teaching the Sunday-school lessons. The

lessons are treated in it in a more comprehensive way than is usual in Sunday-school helps. The writers in it afford *perspectives* of the lessons, such as help a teacher to present them most effectively. The names of the writers, — Rev. Drs. Dunning, Boynton, Griffis, Leavitt, Wright, Foster, Clark, etc., — have become as familiar as household words. The Monday Club sermons have become indispensable.

AN ARITHMETIC FOR PREPARATORY SCHOOLS, HIGH SCHOOLS AND ACADEMIES. By Charles A. Hobbs, A. M., Master of Mathematics in the Belmont School, Belmont, Mass. New York: A. Lovell & Co. Pp. 343. Cloth.

In preparing this book for use in Preparatory and other schools of similar grade, Professor Hobbs has omitted the four fundamental operations, and after giving four pages to a brief review of them, begins with fractions and considers the various processes in advanced Arithmetic. An especial feature of the book is the large number of practical examples and special problems, which are of a nature to be met with in daily business life, and will test the knowledge of the student in a way to benefit as well as test him. It is evidently a practical book, containing much good, large, "round-about common sense."

JACQUES BONHOMME. John Bull on the Continent. By Max O'Rell, author of "Jonathan and his Continent," "John Bull, Junior," "John Bull and his Island," etc. New York: Cassell & Co. Pp. 168. Paper. Price, 50 cents. For sale by Damrell & Upham.

"*Cum grano salis*" will apply exceedingly well to this book if it is after the same style as far as exaggeration is concerned as his "Jonathan and his Continent." While to one perfectly acquainted with the people of whom Mr. O'Rell is writing, these books will afford a little very mild fun, they are almost sure to give the stranger an erroneous idea of people and country.

NURSERY FINGER-PLAYS. By Emilie Poulsson. Music by Cornelia C. Roeske. Illustrations by L. J. Bridgman. Boston: D. Lothrop Co. Price, $1.25.

It would be difficult to find a more bewitching book for the kindergarten than this collection of little poems, uniquely illustrated by an artist full of sympathy with his subject, and set to simple music especially adapted to the voices and abilities of the very young children for whom it is chiefly intended.

The eighteen finger-plays contained in this dainty volume are for children, up to seven or eight, to be used for kindergartens, and we can conceive of no prettier sight than a class of little tots going through the various motions under the direction of a bright teacher who could thoroughly enjoy such training.

But the book must be seen and used to be appreciated, and we are safe in saying that no mother or teacher who can possibly afford the investment of a dollar and a quarter, will ever regret purchasing this unfailing source of pleasure and profit, in the home and the kindergarten.

THE NEW ENGLAND MAGAZINE in its new form, with new dress of type, new style of cover, new corps of Editors, and new business management, is a very pronounced success, and a monthly which every true New England family in or out of these states will enjoy reading and find of real value.

Of the new management we need only say that with General Chamberlain, late Governor of the State of Maine and Ex-President of Bowdoin College, at the head of the business department, and Rev. Edward E. Hale, D. D., and Mr. Edwin D. Mead in the double editorial chair, the quality of the work done will not be less than first class.

The editors in the prospectus of the new magazine say of the policy they are to pursue, "The magazine will be devoted especially to New England life, thought, and history. This special object, however, will be construed in no narrow or provincial spirit. It will concern itself with whatever pertains to general American development and is of interest to the American people." The September and October numbers now out bear witness to this policy well carried out.

The first number is devoted almost entirely to Plymouth and the history of the Pilgrims. Within that month the great Pilgrim monument at Plymouth, finally completed after thirty years, was dedicated. No recent event has been of greater import to the people throughout the country whose roots are in New England, or who are moved by the New England spirit.

The October number is largely an educational number. It contains an article on Dr. William T. Harris, who has just been appointed United States Commissioner of Education, with portrait and other illustrations; an article on The National Educational Association, by Dr. A. P. Marble, the retiring President of the Association; and a paper on the Educational Institutions of Nashville, by Mr. David G. Ray, of Nashville. A general illustrated article on Nashville, by Col. A. S. Colyar of that city, will also be of interest to the teachers of the country, this "Athens of the South" having been the place of this year's meeting of the National Educational Association.

The article by Edwin D. Mead entitled, "Did John Hampden come to New England," in the two numbers before us, is well worthy the author, and will find many interested readers. It is very careful and exhaustive. The article on Dr. Holmes, by George Willis Cooke, should not be passed without a word of commendation. Many other excellent contributions are deserving of notice, but space will not permit.

A most encouraging feature of the publication of this new monthly is the hearty reception given it in and out of the New England States.

We shall look forward to an evening with the New England Magazine each month with genuine satisfaction, and shall realize our expectations of excellent articles, finely illustrated upon first-class paper. In short we are anticipating a thoroughly first-class magazine of high literary quality monthly.

THE PERIODICAL PRESS.

The current periodical literature is replete with valuable contributions. The weekly religious press is full of accounts of great annual and triennial gatherings of different denominations. Perhaps never has so much thought and careful attention been given to the thorough discussion of religious matters as during the last few weeks. In the Magazines for the current month, of especial interest are the article by Prof. William

T. Harris, United States Commissioner of Education, on "Edward Bellamy's Vision," in the *Forum*, in which he shows many of the impossibilities of the scheme. "The Australian Ballot System," by Edward Wakefield will interest many in different parts of the country. — Teachers of higher geography will find in *Scribner's* for October two articles which will give them many new ideas of two very different portions of the earth; they are "How I crossed Masai-Land," by Joseph Thompson, and "A Summer in Iceland," by Chas. Sprague Smith. Both quite fully and carefully illustrated. Students of history will find in the *Magazine of American History* a never ending source of delight. In the October number the accomplished editor, Mrs. Martha J. Lamb, has given us much to enjoy and be benefited by. Among the articles are "Georgia the only Free Colony," "The Discovery of America by Columbus; Boston and New York Celebrations One Hundred Years Ago," and "Romantic Beginnings of Milwaukee." — Mr. Kennan holds the post of honor in the *Century* for October; the leading article is his under the title "In East Siberian Mines." "Molière and Shakespeare," by C. Coquelin, follows, and is in turn followed by three most interesting chapters in the "Life of Lincoln," while of professional and particular interest to the teachers of America are "The Training of the Teacher," by Nicholas Murray Butler, "Manual Training as a Factor in Modern Education," by Francis Newton Thorpe, and "The Democratic Ideal in Education," by Felix Adler. — *The Catholic World* for November is of interest to educators whether Catholic or Protestant. The leading article is "Lessons of a Century of Catholic Education." — That the new Commissioner of Education is not without literary activity still, in spite of the duties of his office, will be seen by a study of "The Spiritual Sense of Dante's Divina Comedia," in the last number of the *Journal of Speculative Philosophy*. — We could wish some of our correspondents could read and apply the article entitled "About Handwriting," by J. F. Genung, in the October number of *The Writer*. — The list of authors which have written for *Harper's Magazine* is not only very large but of a high order. Among those who have contributed for the October number are Lucy Larcom, Austin Dobson, William Wordsworth. Charles Dudley Warner, Edward Bellamy, Prof. W. G. Blakie, D. D., and others. — "*The Kindergarten*," Chicago, is more than usually attractive in its October issue, by means of its exquisite frontispiece, Love's Blossoms, three beautiful child-faces, instinct with confiding affection. Prof. Edward G. Howe continues his invaluable series of lessons on Systematic Science for Kindergarten and Primary School.

PAMPHLETS RECEIVED.

Mr. Parkman's Histories. Champlain on the Coast of New England. Boston. Old South Leaflets. Series 1889, No. 3. — *The Rev. Egerton Ryerson, D.D., LL. D. Founder of the School System of Ontario*, by J. George Hodgkins. — *Morality in the Schools*, by William F. Harris. Boston. Christian Register Association. — *Road Legislation for the American State*, by Jeremiah W. Jenks, Ph. D. Baltimore. American Economic Association. — *Report of the Proceedings of the American Economic Association*, with Addresses by Dr. William Pepper and Gen. F. A. Walker. — *Training of Teachers in Austria*, by E. Hannak, Ph. D. New York. New York College for the Training of Teachers. — *Clark University*. First Official Announcement. Worcester. — *Thirty-first Annual Report of the Washingtonian Home.* — *A Method of Christian Co-operation for Reaching the Non-Church-Going Class*, by Rev. Frank Russell, D. D. New York. 42 Bible House. — *Constitution and List of Officers and Members of the American Economic Association.* — *Handbook of Music Lessons. First Year Grade*, by Tilton, Ginn & Co. — *Electoral Reform*, with the Massachusetts Ballot Reform Act and New York (Saxton) Bill. New York. Society for Political Education. — *Science Teaching in the Schools*, by William North Rice. Boston. D. C. Heath & Co. — *What Manual Training Is and How It Can Best be Conducted.* Boston. D. C. Heath & Co. — *Proper Forms of Address.* New York. John B. Alden. — *Proceedings in Commemoration of the Settlement of the Town of New Haven.* — *How to Introduce Drawing in Public Schools*, by C. E. Meleney, Supt. of Schools, Somerville, Mass. New York. College for the Training of Teachers — *Josiah Quincy, the Great Mayor*, by Mellen Chamberlain. Boston, Mass. Society for the Promotion of Good Citizenship. — *The Study of Modern Literature in the Education of Our Time*, by James MacAlister, LL. D. — *Le Mari de Madame de Solange*, by Super, with notes. Boston. D. C. Heath & Co. — *Effe, frak, vergeffen*, by Otto Schwetzky and *Traiti sur Le Geme des Noms Francis*, by Paul Louis Guerin. Boston. Carl Schoenhof.